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Anaesthesia in Veterinary Practice

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In the general work of the veterinary practitioner, surgery plays a very important rôle, and hence it is necessary that those engaged in practice should strive to maintain a thorough knowledge of this subject, together with a reasonable knowledge of anatomy, physiology, pathology and bacteriology.

A surgical operation should be regarded as a very serious and responsible undertaking from the point of view both of the patient and the surgeon, and the following factors, if observed, tend greatly towards its success:

(1) Cleanliness.
(2) Sterilisation of instruments, etc.
(3) Having the patient under proper control and suitably anaesthetised.
(4) Strict post-operative attention to the patient.

I shall refer briefly only to numbers one, two and four since they do not come within the purview of this paper. The patient should be well groomed and cleaned beforehand and particularly in the neighbourhood of the site for operation. The place for carrying out the operation should be carefully selected. In the case of the larger animals a green field is the safest and most hygienic place for casting. The field selected should be as near as possible to the animal's stable and the approach thereto over clean ground. In the case of the smaller animals a suitable room should be specially set aside for the purpose. Such room and its fittings should be kept scrupulously clean and situated in that part of the premises not liable to be frequented by clients, as in many instances it is more convenient to operate without the owner being present.

The surgeon, immediately before proceeding to operate, should take every possible precaution in regard to personal cleanliness. Clean overalls should be worn, and the hands and arms thoroughly washed, and afterwards disinfected—this also applies to a direct assistant if one is likely to be required. An operation should not be carried out for at least 48 hours after having handled any septic material, unless gloves are worn.

The next item of importance to observe is to have the instruments, dressing materials, etc., required for the operation properly sterilised and in a suitable container. It is useful to have lists made out containing the names of the various instruments which may be needed for different operations; this will ensure against the risk of forgetting to include some important instrument in the sterilizer. There should be at hand a plentiful supply of recently boiled water in clean vessels.

GENERAL ANAESTHESIA

It is essential in order to operate with comfort and success to have the patient under proper control and suitably anaesthetised. In this connection the practitioner should also be thoroughly acquainted with the Animals (Anaesthetics) Act, 1919.

For general anaesthesia in the larger animals chloroform is the most suitable anaesthetic agent, and in the case of the horse the "chloroform standing method" is the safest and least laborious, and should be carried out whenever possible and when suitable space is available. Before the administration of a general anaesthetic the patient should be suitably prepared and the condition of the heart ascertained and the bladder evacuated as far as possible.

The practitioner should always have his own tackle, ropes, etc., and not depend upon those offered him by his clients. The cavesson should be fitted with two throat straps in addition to the straps composing the nose band, and when putting on the cavesson the throat straps should be crossed, *i.e.*, the upper one should be buckled to the lower of the opposite side and vice versa. The following advantages are thereby gained: the cavesson is more secure, the cheek straps cannot injure the horse's eyes, and there is no pressure brought to bear on the larynx.

The most suitable type of muzzle for the chloroform standing method is Cox's or one of its modifications, and the best material to use as the bottom running string is a good leather

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thong with the running portion well soaped to allow the canvas to glide freely on it. An automatic closing device such as an india-rubber band or a zip fastener, may be useful, provided such does not fail to function. The muzzle is best put on in the stable and its cheek straps should be passed underneath the nose band of the cavesson, then outside the lower throat straps and inside the upper ones. If the upper opening of the muzzle is not sufficiently tight around the animal's face a stable rubber or hand towel may be packed inside its rim. Before inserting the sponge the first knot on the lower running string should be made and a second turn put on it, and the animal's tail should be towards the wind, but immediately the sponge is in and secured the animal's head should be turned towards the wind. It is useful to have a perforated partition in the muzzle to keep the sponge from coming into direct contact with the animal's nostrils and so avoid blistering of the latter by the chloroform. If this partition is absent it is advisable to smear the nostrils with vaseline before applying the muzzle and when the latter has been removed the mouth and lips should be swabbed with cold water. It is wise for the practitioner to have some Scheele's prussic acid, or liquor ammonium fortis in readiness in case of threatened asphyxia or cardiac syncope. Prussic acid should be contained in a dark glass bottle with a glass stopper.

The use of chloral hydrate as an anaesthetic agent for operations is not to be recommended in practice; on the other hand, it is often useful to quieten a restive animal and may conveniently be given by the stomach tube.

Nembutal Anaesthesia

For general anaesthesia in the dog and cat the practitioner has a choice of anaesthetics and of different methods for their administration. The first anaesthetic agent that I wish to deal with is nembutal. This drug is supplied as a white crystalline powder in one grain and one and a half grain capsules. It is freely soluble in water, the solution being made in the proportion of one grain to 1 c.c. of sterile (boiled) water or more concentrated when a larger dose is required. Administration may be (1) by the mouth, (2) intraperitoneally, (3) intravenously. The first-named method is seldom practised.

The intraperitoneal method of administration is very convenient and generally, though not always, effective. The injection may be made through the flank, or at the white line, using a size 20 needle about one inch or one and a half inches in length. When inserting the needle care should be taken that it penetrates the abdominal wall, otherwise the injection will be made into the subperitoneal tissues. Anaesthesia is present in about a quarter of an hour after the injection has been made, and lasts from one and a half to two hours. Occasionally anaesthesia is slow in its onset, or it may not be complete, due either to an idiosyncracy on the part of the patient, or in the case of a very fat animal to the injection having been made into the fat. In such cases anaesthesia may be completed by the careful use of chloroform or ether and oxygen. In exceptional cases, and particularly in greyhounds, a state of excitement characterised by whining and slight struggling supervenes even when the maximum dose has been given, but this can be combated by the use of chloroform or ether and oxygen. This excitement is usual following the administration of a much lower dose of the drug than that calculated to be required to bring about proper anaesthesia. The onset of anaesthesia is indicated by yawning, smacking and licking of the lips, and sometimes by sneezing—the latter is noticed particularly in cats.

The scale of dosage recommended for the intraperitoneal injection of the drug is as follows: (*a*) 10 to 25 lbs. weight, ¼ grain per lb. body weight; (*b*) 30 to 45 lbs. weight, 1/5th grain per lb. body weight; (*c*) 50 to 60 lbs. weight, 1/6th grain per lb. body weight; (*d*) 70 lbs. and upwards 1/7th grain per lb. body weight.

By the intravenous method of administration, anaesthesia is usually complete within one minute after the injection has been made and usually, also, before half the solution is injected relaxation of the muscles may be noticed in addition to the signs already referred to. In the dog there are two sites for injection. One is the external saphenous vein just where it passes obliquely upwards and backwards on the outside of the leg above the hock. Distension of the vein is best brought about thus: Having placed the dog on its opposite side on a table, an assistant grasps the upper hind limb with one hand just below the stifle from the outside, keeping the index finger and thumb nearest the site of injection. Sufficient pressure is thus exerted on the limb so that the vein will stand out clearly and can be made to roll under the finger. The other site is the radial vein where it passes upwards on the anterior aspect of the upper two-thirds of the forearm. This vein is best distended by applying pressure with the thumb over the anterior aspect of the elbow joint. In the case of cats the injection is best made into the radial vein and the site is the same as that for the dog. When possible it is best to have two assistants to ensure that the animal is so well controlled that it cannot move its limb, especially after the needle has entered the vein.

Before making the injection the hair should be clipped and the skin shaved and disinfected

with spirit over the site for injection. The best type of syringe to use is one with an excentrically situated nozzle. It is more convenient to make up the solution of the drug in the syringe. This can be done by removing the piston, placing the powder in the barrel, then reinserting the piston and drawing up a sufficient quantity of water into the syringe, and gently shaking the latter until solution is brought about. The syringe and needle should be attached and the former should not be absolutely filled as it is wise to leave some space so that the piston may be withdrawn to allow blood to enter the syringe when it is thought that the needle has entered the vein. This test is necessary to ensure that the needle is in the vein. When the needle has entered the vein, and before the injection is begun the pressure on the limb may be released. The injection should be made very slowly, as in so doing the dose can be regulated by observing its effects, and also the onset of anaesthesia will be favoured. If the animal does not appear to be sufficiently anaesthetised when the calculated dose is given, it is advisable to wait for five minutes or more before attempting to give an extra dose of the drug, as it occasionally occurs that a few minutes may elapse after the injection before complete anaesthesia is present. If when making the injection a subcutaneous swelling occurs it is a sign that the needle is not in the vein; or on the other hand if the needle has been in and is accidentally withdrawn a haematoma will form at the site. In such instances entrance to the vein should be tried higher up, and if this appears to be impossible another limb should be used. It is very essential to keep the point of the needle directed in the same line as the vein.

For intravenous injection the dose may conveniently be calculated by allowing 1 grain to every 5 lbs. body weight. If, before the calculated amount of the drug is used, anaesthesia is found to be complete, the injection should cease. The antidotes recommended are the usual respiratory stimulants, or an injection of coramine intrasmuscularly or strychnine subcutaneously.

When the patient is recovering from the effects of the nembutal it sometimes undergoes a stage of excitement which lasts for about an hour.

Nembutal anaesthesia is contra-indicated in the case of animals suffering from cardiac, respiratory, hepatic, or renal affections.

When dealing with a fractious animal or if short of assistance it would be wise for the operator to use morphia to narcotise the animal before attempting to make the injection. It must be kept in mind, however, that morphia is contra-indicated for cats owing to the excitement it produces in these animals.

Other drugs which may be given intravenously to bring about general anaesthesia are evipan sodium and pentothal sodium. Both are quick acting in their effects and the latter appears to be one which could well be recommended, especially for short surgical operations, since the anaesthesia produced lasts only up to 20 minutes, after which recovery is very rapid. (See *Veterinary Record*, January 9th, 1937. Vol. 49, No. 2: article by Professor Wright.)

General anaesthesia may also be brought about in the dog and cat by causing the animal to breathe air which is laden with a certain vapour or vapours. This method of anaesthesia is called the "inhalation method," and the drugs commonly used are chloroform and ether. Chloroform may be administered conveniently to the dog by dropping the liquid on a piece of cloth or cotton wool placed in a wire muzzle on the animal; this is called the open method of administration. On the other hand an inhaler may be used such as Hobday's pattern, which consists of a mask, a suitable glass container for the chloroform and a bellows. Anaesthesia by chloroform should be induced slowly. At first the animal's respiration may seem to cease; at this stage administration of the anaesthesia should be discontinued until the respirations again become regular. The stage of excitement accompanied by the involuntary escape of urine and faeces are objectionable features of chloroform anaesthesia. Cats are more susceptible to the effects of chloroform than dogs. For the former it is safer to mix chloroform and ether, in the proportions of one, two and three parts respectively. What is known as the A.C.E. mixture, *i.e*, alcohol, chloroform and ether, in the proportion of one, two and three parts respectively, is also very safe and reliable in producing anaesthesia in cats and also in prolonging anaesthesia in the dog after having first induced it with chloroform.

The combination of ether and oxygen is a very safe and efficient method of producing anaesthesia in the dog, cat and pig. The apparatus required for this method comprises a mask, an ether container and an oxygen cylinder fitted with a gauge and valve. The ether container is fitted with a rubber cork in which are inserted two metal tubes—a short one which does not project into the ether and which is connected by means of a rubber tube to the mask, and a long tube extending to the bottom of the container and connected by a rubber tube to the oxygen cylinder. The oxygen is gently forced into the ether container and then passes out into the mask laden with ether vapour. Anaesthesia by this method is usually complete in about five minutes and can be prolonged with safety by allowing a very slight quantity of oxygen to travel continuously through the ether.

Epidural Anaesthesia

Epidural anaesthesia is now widely practised, especially in cases of dystokia and prolapse of the vagina, uterus and rectum in all animals, and in examination of and operation on the penis of the bull. This form of anaesthesia is effected by injecting a local anaesthetic solution into the epidural space at the termination of the spinal cord and when efficiently brought about this anaesthetises the hind limbs, pelvis, and posterior portion of the abdominal cavity and thus prevents straining. Any reliable local anaesthetic should give good results, but parcaine (parsetic) (Parke, Davis & Co.), and also procaine have been shown to be very satisfactory.

The injection in cattle is made in the middle line between the first and second coccygeal vertebrae. The site is determined by holding the tail in a straight line with the median plane of the body, and moving it up and down, when the sacro-coccygeal joint will be found; immediately behind this will be found an eminence representing the first coccygeal spinous process, and the injection is made in the centre of the depression between this process and that of the second coccygeal vertebra. It is advisable to use a 20 c.c. glass hypodermic syringe and a 16 to 18 gauge needle two inches long. The needle should be pushed downwards and forwards at an angle of 60° to the horizontal plane, keeping it in the middle line. The canal is entered when the needle has passed in for a depth of one to one and a half inches. The solution should be injected slowly, and if the needle is in the correct position no resistance to the entrance of the solution will be encountered. In gauging the dose of the anaesthetic the size and weight of the animal must be considered, and also the extent of the anaesthesia required to be produced. For an average-sized Shorthorn animal 15 c.c. of parsetic (P., D. & Co.) will anaesthetise the tail, rectum and genital organs of the cow without the animal going down. It is recommended, when attempting to cause protrusion of the penis, first to inject a relatively small dose of the drug, say 10 c.c., and to leave the needle *in situ*, and if the penis is not extruded, to follow up with 2 c.c. injections until the required result is brought about.

The site of injection in the horse is similar to that in the cow, but is more difficult to determine, especially when dealing with a fat animal, or one belonging to a heavy breed. It is advisable first to apply a local anaesthetic to the skin over the site, particularly in the case of a well-bred or otherwise restive animal. The needle should be inserted at right angles to the dorsal surface of the tail held horizontally, and at the angle of 45° in a forward direction to the dorsum of the tail when the latter is kept in the drooping position. The dose of parsetic (P., D. & Co.) varies according to the size of the horse and the parts to be anaesthetised. In an average-sized animal, 6 c.c. is said to affect the tail, 12 c.c. the vulva, anus and perinaeum, and up to 25 c.c. may be required to affect the vagina, rectum, bladder and urethra, and to correct dystokias. About 50 c.c. may be required to anaesthetise the hand limbs, inguinal region and posterior portion of the abdomen. This dose, however, will cause the animal to go down, and this in the case of the horse is objectionable because the animal may injure itself in making violent efforts to rise, and also because the state of recumbency may last two or three hours.

The site for injection in sheep is in the middle line in that depression between the last lumbar spinal process and the sacral crest, and it is determined by the point of intersection of a transverse line joining the summits of the wings of the ilia and the mid-vertebral line. The needle should be inserted at right-angles to the surface of the tail to a depth of about two inches and should not be pushed too deeply lest the subarachnoid space be entered. If the latter occurs, the cerebro-spinal fluid will be seen to escape through the needle. It has been found that 8 c.c. of procaine gives good results in Cheviot ewes.

The site of injection in pigs is one and a half inches behind that described for sheep, and the dose of anaesthetic advised is 1 c.c. of a 2 per cent. solution of procaine for each 10 lbs. body weight. Fat animals should receive a smaller dose on account of being more susceptible to procaine poisoning.

The site of injection in dogs and cats is the lumbo-sacral space. This site is determined by finding the spine of the last lumbar vertebra, which is usually in line with the iliac crests, and the point of injection is the centre of the depression behind this spine and in the middle line. It is best to have the animal lying on its right side on a table with its hind legs bent forward, and after having injected a local anaesthetic over the site to stand facing the latter and to insert the needle into the space, directing it backwards at an angle of 45°, all the time remembering to keep in the middle line. The distance to which the needle is inserted varies from one half to two inches according to the size of the dog. The dose recommended is about 1 c.c. of a 2 per cent. solution of procaine for each 5 lb. body weight.

Epidural anaesthesia in the cat is carried out in a similar manner to that described for the dog. About 3 c.c. of a 2 per cent. solution of procaine is sufficient for the average cat. Symptoms of procaine poisoning in the dog and cat are said to comprise twitching of the head, howling, stiffening out of the legs, dyspnoea

and running movements of the limbs. The antidote recommended is an intravenous injection of soluble barbital in the proportion of 20 grains in 25 c.c. of solution for a dog 40 lbs. weight. Epidural anaesthesia in the dog and cat so produced may last from one half to one hour.

LOCAL ANAESTHESIA

Local anaesthetics are most valuable to practitioners since a large number of operations on all animals can be performed under their influence. Needless to say, each practitioner has his or her own pet local anaesthetic agent.

Local anaesthesia of the skin, and to a certain extent the subcutaneous tissues, can be produced by the application of ethyl chloride or ether spray to the part, or by rubbing gently into the part for a few minutes a mixture of equal parts of carbolic acid and powdered camphor. Anaesthesia produced by ethyl chloride or ether spray lasts only a few minutes.

To produce deeper and more prolonged anaesthesia of a part it is necessary to inject a solution of some anaesthetic agent. The hydrochloride of cocaine in 4 per cent. solution is a very reliable local anaesthetic. Its uses, however, should not be encouraged where an incision is to follow, since the drug is a protoplasmic poison and hence must have a retarding effect upon the healing of the wound. It is to be recommended more for blocking nerves both for diagnostic purposes and prior to firing, and for bringing about anaesthesia of the eye and its appendages to allow of examination of the latter. Cocaine is toxic for all animals when given in excessive doses, and dogs and cats are very susceptible to its effects. The maximum safe dose for a horse is said to be ten grains, but a dose of four grains may have an exciting effect on some horses. The maximum dose of cocaine for the largest dog is said to be two grains. The simultaneous injection of adrenalin hastens and prolongs the action, and diminishes the toxicity of cocaine. Other disadvantages of cocaine are the trouble in procuring a sterile water for making the solution, and the risk of the solution losing its anaesthetic properties with age when being kept in stock. When making a solution of cocaine it is necessary to keep in mind that the anaesthetic action of the drug is destroyed by very hot water. The addition of perchloride of mercury to a solution of cocaine to the extent of 0·03 per cent. ensures against it losing its keeping properties. Parke, Davis & Co. supply a solution of cocaine and adrenalin called codrenine; and there is a cocaine-free preparation of Willows, Francis, Butler & Thompson called chlorocaine which has proved itself to be an all-round efficient and safe local anaesthetic. By its use the disadvantages of cocaine are avoided. It takes about five to ten minutes to produce full anaesthesia. Eudrenine, which is a solution of eucaine and adrenalin, is also a good local anaesthetic but does not appear always to be effective when used for blocking nerves. Parsetic and procaine are particularly useful for producing epidural anaesthesia. There are many other proprietary perparations successfully used as local anaesthetics which I have not time to mention.

Before attempting to anaesthetise a part by nerve blocking it is very necessary to be thoroughly acquainted with the nerve supply to the part and to know the exact situation and the anatomical relations of the nerve, especially at the site at which the injection is to be made. If these points are not kept in mind the injection may be into a sheath or blood-vessel. or on the other hand the nerve may be widely missed and the injection pass into the neighbouring tissue. The great sesamoidean sheath is likely to be punctured when blocking the plantars in the proximity of the fetlock joint; here also the injection may pass into one of the plantar vessels. The carpal sheath and metacarpal vessels are liable to be punctured when blocking the plantar nerves close to the knee; the vessels are most liable to be punctured when blocking the inner plantar. Making the injection into vessels may in all cases be avoided by waiting for a few moments after inserting the needle to observe if blood comes through. If no blood appears one can take it that the needle has not entered a vessel. When inserting a needle in any part of a limb it is advisable to have the hoof lifted off the ground by an assistant in the case of a fore limb and to use a side-line to control a hind limb. When inserting the needle its point should be directed towards the proximal extremity of the limb.

Chlorocaine and procaine, in addition to cocaine, have proved very satisfactory for blocking nerves. Nerve blocking should be carried out always when in doubt as to the seat of lameness in a limb. In the hind limb, blocking of the posterior tibial nerve also suffices for firing the flexor tendons and the fetlock, but for the pastern the plantars are blocked above the fetlock. When firing for curb a local anaesthetic given over the site is sufficient, and the camphor and phenol mixture well rubbed in will bring about sufficient anaesthesia for this purpose. The application of this mixture to a part is often very useful to anaesthetise the skin prior to inserting a hypodermic needle for the purpose of injecting an anaesthetic to bring about deeper anaesthesia when, for example, needle point firing the front of the knee, or the hock for spavin. Blocking of the anterior tibial nerve is not always effective, due perhaps to its deep situation in soft tissues. For firing the flexor tendons of the fore limb and also the

latter for splints it may be advisable also to block the ulnar in addition to the plantars.

Blocking of that branch of lachrymal nerve which supplies the horn allows of the operation of dehorning of cattle to be carried out painlessly. The site for injection is about one and a half inches below the base of the horn, and close up against the posterior border of that ridge of bone running from the orbit to the base of the horn. The needle is inserted at this point to a depth of about three-quarters of an inch, keeping its point directed towards the angle of the corresponding jaw. The injection of 5 c.c. of a reliable anaesthetic is sufficient to block the nerve. When dealing with animals with a very extensive horn basis it may be wise to give a few injections into the skin around the base of the horn in order completely to anaesthetise the latter.

Local anaesthesia is generally employed in amputation of the phalanges in dogs. When making the injection for this purpose the point of the needle should be pushed upwards above the seat at which the amputation is to be performed, and the anaesthetic injected as the needle is slowly withdrawn. The superior, inferior and lateral aspects of the joint should be anaesthetised in this manner, and it is necessary to keep the needle close to the bone so as to anaesthetise the periosteum.

When a local anaesthetic is used for the castration of horses, especially in the standing position, the following technique has been recommended in making the injection. Use a 10 c.c. syringe and a three-inch needle, and about 5 c.c. of any reliable anaesthetic solution for each testicle. Insert the needle into the rear of the testicle, and push upwards to the epididymis at about its point of union with the tunica. When this is reached the testicle is drawn on by the cremaster muscle and this is said to be the best point for making the injection.

The operation for neurectomy in all cases except that for deep plantar may be performed in the standing position by the use of about 5 c.c. of a reliable local anaesthetic injected over the nerve above the site for operation.

Discussion

Professor O'Connor, opening the discussion, congratulated Mr. Byrne on the way in which he had dealt with the subject. The essayist's introductory remarks were very appropriate and he agreed with him as to the importance of proper control of the patient and of cleanliness and asepsis in surgical procedure. Referring to the administration of chloroform in the standing position in the horse, Professor O'Connor stressed the necessity of having the muzzle securely fixed. He advised having it put on the horse in the stable with the straps under the noseband of the cavesson fixed by cord to the cheeks of the latter to ensure that it would not get displaced.

The Cox muzzle answered the purpose fairly well, but there was room for improvement in chloroform muzzles or inhalers for the horse. Mr. Imrie's inhaler, which was detachable from the muzzle, had the advantage of being provided with a chloroform container from which the flow of chloroform on to the sponge could be regulated by turning a screw. Mr. Imrie had found it very satisfactory.

The muzzle through which the chloroform was introduced by the action of a foot bellows was a very satisfactory contrivance when carefully supervised. The chloroform was mixed with a suitable quantity of air when being inhaled.

The method adopted by some practitioners of wrapping a rug or blanket all round the horse's head over the muzzle when the animal was cast was a fairly quick way of inducing anaesthesia, but it had the disadvantage and danger of diminishing largely the amount of air that entered with the chloroform and gave the impression that the animal was being almost asphyxiated.

A hypodermic injection of morphia with atropine half an hour before administering the chloroform diminished the amount of chloroform required and hastened its action.

It was essential to have a good cavesson with a good rope lead on the horse when being chloroformed standing. He had seen horses get away, through the web lead breaking, when the animal became excited after receiving the first whiff of the chloroform.

He did not approve of the intravenous injection of chloral hydrate as an anaesthetic except for a horse prior to destruction. There was always a risk of phlebitis supervening and the disadvantage of the horse remaining recumbent for a long time after the operation. It was useful given as a hypnotic by the stomach tube for a restive horse prior to casting or to the administration of chloroform in the standing position, but even then it sometimes had the effect of delaying recovery from anaesthesia. He had seen a thoroughbred horse unable to rise for five hours after its use in this way. The horse made several efforts to rise but could not balance himself in the standing position. He had to be held down in the intervals between the times when attempts were made to get him on his feet, to prevent him beating his head on the ground. He had never known a horse to take so long to rise after chloroform alone.

Many operations could be done satisfactorily under local anaesthesia. He had cut down to the bone on the horse's foot in the standing position without a twitch, after blocking the plantar nerves, without any sign of resentment on the part of the patient.

For small animals the inhalation of ether and oxygen was very safe and reliable. The intravenous injection of nembutal was, of course, very convenient and very effective in the great majority of cases, but in exceptional cases it was disappointing, the patient remaining in a state of subdued excitement after receipt of the proper dose of the drug. It also had the disadvantage that excitement might occur when the animal was regaining consciousness. Moreover, there was no definitely reliable antidote when collapse from its effects was threatened.

It was an excellent agent for the production of euthanasia in conjunction with an intrathoracic injection of prussic acid, the latter causing immediate death without any spasm or cry when injected after inducing anaesthesia by the nembutal.

Evipan had the same action as nembutal except that the duration of the anaesthesia was shorter. The injection of nembutal or evipan alone in the dose of one-half grain to the pound body weight was often sufficient to cause death in the dog within a few seconds.

Professor O'Connor concluded by thanking Mr. Byrne for his excellent paper.

Mr. L. M. Magee (Dunboyne) having also congratulated Mr. Byrne on his paper, said that with regard to chloroforming the horse in the standing position, he believed that Mr. Sherlock, of Drogheda, was the first man in this country to do it, that Mr. Byrne, of Roscommon, was the second and that he (Mr. Magee) was the third, though he understood that Mr. Howard, of Ennis, laid claim to the third place. Continuing, Mr. Magee observed that one must guard against air getting in through the muzzle. With regard to the dose, he had .given two to five ounces. He liked the horse to go down fairly quickly; then he took the sponge out of the muzzle if the animal was getting too much. He had seen one accident with a donkey. The donkey was given a dose of half an ounce; in a while it was noticed that he was recovering consciousness, a further dose of two drachms was given and in a few moments the animal was dead. The donkey had been grazing immediately before being chloroformed and the anaesthetic should not have been given under those conditions. There was great danger in giving chloroform on a full stomach and he knew of two pups that had succumbed under these conditions. He had had a cow under chloroform for two hours without any bad effects.

With regard to chloral hydrate, he only gave it once as a general anaesthetic, to a cow on which he was attempting Caesarean section.

Concerning the use of nembutal, he might mention that he took this drug himself in order to prevent sea-sickness.

They should always remember that a good respiratory stimulant was artificial respiration and it should be persevered with for a long time. He had known a case of a bullock that was brought round after being almost half an hour without breathing.

With regard to local anaesthesia, a method of inserting the needle subcutaneously in order not to puncture a vein or a sheath which he had found very useful was to clip a small area, and below this the skin should be pulled out well by catching a bunch of hairs—or the skin should be pulled out between the finger and thumb to form a ridge. He did not approve of lifting the limb off the ground, finding it easier to insert the needle with the limb on the ground.

Concerning epidural anaesthesia, he had found it a wonderful godsend, especially with regard to returning a prolapsed uterus. He had been called to a charger that had one foot of bowel out. He induced anaesthesia epidurally and in 15 minutes he returned the bowel and the horse never put it out again although the animal had done this repeatedly before, the bowel having been previously returned without using the anaesthetic.

With regard to firing curbs, the best way was to clip the hair in three spots, one, one inch above the curb and the other two at one inch each side of the curb. Give a big dose of local anaesthetic when not using a toxic one.

Professor T. G. Browne complimented Mr. Byrne on his instructive paper, adding that the essayist had given very little opportunity for criticism.

In regard to local anaesthetics it was surprising what great variation of opinion existed amongst practitioners in connection with the efficiency of the different agents used. Usually each practitioner had his own pet agent which he considered much better than any other; on the whole, however, the general consensus of opinion seemed to be in favour of cocaine, although it had the disadvantages of being more toxic than most of the other agents and it would not keep in solution for a prolonged period. The medical profession and the dentists had much better opportunities of testing out the different local anaesthetics than we had because the human patient could say exactly how much or how little pain he felt. It was a pity that there was no means of standardising the different local anaesthetics on the market.

With reference to spinal anaesthesia in the horse, he preferred to insert the needle almost horizontally while the tail was hanging in the normal position so that the point of the needle would glide forward on the floor of the canal, thus indicating that the canal had been entered.

He considered 15 c.c. parsetic too large a dose for the average cow as it would be likely to paralyse the hind limbs and thus put her down. About 8 to 10 c.c. were as much as the average cow would stand without going down.

Spinal anaesthesia in dogs was simple enough to carry out except in fat animals where the spines of the vertebrae could not be located.

With regard to dehorning of cattle by nerve blocking, he preferred not to make the injection further down than one inch below the horn because as the nerve descended it passed more deeply and was surrounded by more fat. The injection should be made subcutaneously behind the lateral ridge of the frontal bone. Should the needle be inserted more deeply it would enter the temporal muscle and the injection would be made into this muscle and thus miss the nerve.

With reference to chloroform, it was well to remember that some bottles of chloroform might be more toxic than others, probably depending on the conditions under which they had been kept. He remembered one experience he shared with Professor O'Connor, when dehorning a number of cattle with a general anaesthetic. Everything went well while using the first bottle of chloroform, but the first two animals to receive the second bottle collapsed and were revived only with difficulty, although the dose

had been the same as from the first bottle. Smaller doses from the second bottle were then given to the remaining animals.

Mr. F. J. Daly (Swords) said Mr. Byrne's able paper had been very interesting to him because of the fact that he was in private practice and had to make use of anaesthetics on many occasions.

He used chloroform as an anaesthetic for castrations and he gave it while the colt was on its feet. He employed the Cox type of inhaler but instead of the purse strings he had had a ring of elastic or rubber fitted. This prevented the sponge falling out if the colt should plunge immediately the sponge was placed in the inhaler. He always used his own cavesson for these operations because one could not depend on a cavesson supplied by the owner of the colt. He preferred to put the inhaler on in the field as there was less risk of the colt injuring himself. Many colts reared when they were led out first and if the inhaler was on and the animal should injure itself the owner might blame the inhaler for causing it to rear. He usually put two and a half to three ounces of chloroform on the sponge—the dose depending on the size and age of the colt. He found that the use of chloroform for castrations was a very good thing to get rid of quackery in his district. When an owner saw a colt going down easily, as it usually did under chloroform, and that it did not struggle during the operation, he was not likely to employ an unqualified castrator to do similar operations in the future.

A local anaesthetic was very useful for suturing large wounds: it saved the animal pain and removed the danger of one's being kicked. He used a long fine needle and injected the anaesthetic from the cut edges of the wound. He had employed local anaesthesia a good deal for dishorning cattle and found it ideal for the purpose. The animal need not be trussed up with ropes and if it was necessary to ligature an artery this could be done without causing the animal to struggle as it would do if an anaesthetic was not used.

Mr. J. J. Condon (Tipperary) joined in congratulating Mr. Byrne on his paper, which, he said, had a double interest in view of the number of operations seen that evening. Anaesthesia stopped pain, kept abreast of the times and got away from the empiric. Good quality chloroform was essential as also was previous fasting. Sometimes there was difficulty in adjusting the mask. He had found epidural anaesthesia a wonderful help in practice.

Mr. J. S. MacCann (Tullamore) said he was delighted with the subject for discussion that night and was especially interested in anaesthesia in the larger animals. He had found a zip fastener on the muzzle very useful. A colt's resistance was small and the point to watch was the breathing.

With regard to epidural anaesthesia, he found that a dose of 10 c.c. was sufficient for calving cases and for cases of prolapsed uterus.

He had found that cocaine and oil of cloves brushed on the part before firing curbs was very useful. He used nembutal frequently without bad effect.

The Reply

Mr. Byrne, in reply, said that he must first thank Professor O'Connor for opening the discussion and also for his very kind remarks in connection with his paper. He was sure that all the members present were very interested in hearing Professor O'Connor recall some of his experiences when chloroforming horses. These experiences showed them the necessity of taking the utmost precautions when they attempted to cast horses or administer chloroform to them in the standing position.

They all should keep in mind what Mr. Magee had said in connection with artificial respiration, and to that he would wish to add that the artificial respiration should be regular and synchronous with the normal respirations. Mr. Magee's method of pulling out the skin by traction on a bunch of hairs to insert a needle subcutaneously was very good. He was of a different opinion from Mr. Magee when he said that he preferred to insert a needle into a horse's limb without having the hoof of the latter lifted off the ground, because when the needle penetrated the skin the horse usually stamped his limb and so might jerk out the needle.

Both Mr. Condon and Mr. Daly had maintained that the employment of an anaesthetic for the castration of colts was a means by which quackery might be wiped out in connection with this operation—a fact with which he readily agreed. The opinion was held by some that castration without a general anaesthetic had a retarding effect on the future vitality and courage of a colt. The type of chloroform muzzle which Mr. Daly had described seemed to be very efficient. It was very common, as Mr. Daly had said, to find a great variation in the amount of chloroform required to anaesthetise horses; this might be due either to an idiosycrasy on the part of the particular animal or to a difference in the quality of the chloroform used. Half-bred horses usually went under more easily than thoroughbreds and unfit horses than fit ones. The method by which Mr. Daly dehorned large numbers of cattle under the influence of local anaesthesia was very useful. He was glad to hear, Mr. MacCann's opinion regarding the usefulness of the zip fastener on the chloroform muzzle.

He again thanked Professor O'Connor and all the members present for the kind reception which was given to his paper.

CATTLE STOCK IMPROVEMENTS

"There has been a marked improvement in the type of bull used for breeding purposes since the Live Stock (Licensing of Bulls) Act came into operation some seven years ago," says the *North British Agriculturist.* "This is only what might have been expected as the object of that Act was to prevent as far as possible the production of British livestock on inferior lines when circumstances admittedly demanded the necessity for improving if possible the basic quality of our meat production. There is no doubt that breeders of pedigree bulls are coming to realise that mere pedigree alone is not sufficient for a pass under the Licensing Act, and one could almost welcome a time when there would be some such restriction in the case of female stock put into the pedigree sale rings ostensibly for breeding purposes. It is a regrettable fact that too many sales of pedigree female stock have resulted in a seriously reduced average owing to lack of reasonable consideration for the reputation of the breed concerned on the part of the owners who allow into the pedigree ring young stock which on their merits should have been reserved for commercial sale."

ANNOTATION

The Use of the Word "Veterinary"

Professor Leclainche (*Histoire de Médecine vétérinaire*), after tracing the history of the word from its probable origins, concludes approvingly upon its usefulness. His last paragraph reads:—

"R. Fröhner deems that the only correct designation in Germany is that of *Tierarzt* which has the merit of being specifically German. It must be admitted that this term, which is both simple and euphonious, indicates very well the essential rôle of the veterinarian and it has felicitous kinship with several medical designations—*Menschenarzt, Kinderarzt, Frauenarzt, Zahnarzt,* etc. However, it would be difficult to make up an equivalent in most languages, whilst the expression 'veterinary' is used everywhere (*Veterinär, vétérinaire,* veterinarian, *veterinar, veterinario,* etc.) both as a substantive and as an adjective. Whereas it is etymologically of the most humble origin, it has triumphed to noble rank in the course of time, and the very remote Latin from which it has sprung should set aside any national uneasiness about its use. Its lack of precise meaning in the strictly etymological sense provides solid grounds for its universal adoption: the veterinarian is not only the physician of animals (*Tier-arzt*); he has a part to claim in the fields of public health and animal husbandry. Finally—and this settles the matter—the term has gained to-day the sanction of current usage in every country in the world."

Unfortunately, the position is not quite so simple in this country as in France, where both the adjective and substantive have identical spelling (*vétérinaire*). In the course of time this has led to much confusion which would be difficult now to clear up. The statutory designation of the qualified practitioner is laid down in the R.C.V.S. Charter of 1844 and the Act of 1881 as Veterinary Surgeon. It has been rightly said by the Loveday Committee, however, in the first paragraph of their report, that "his established title of veterinary surgeon obscures his more important functions. . . ." What, therefore, is the best designation to adopt if usage has not already conferred upon the title a standing from which it cannot be disestablished? At most places, but not invariably, in their report the committee use the term "veterinarian" to designate the qualified person. This word is not now very familiar, and nearly all practitioners are fastidious about the strict employment of the statutory term, largely, we believe, because in their minds the common tendency of the public to use an abbreviation has a depreciatory significance. The term "veterinary surgeon," however, has no claim to priority in common English usage. In 1828, *i.e.*, before the R.C.V.S. Charter was obtained, the editors of *The Veterinarian* were prevailed upon, on founding the periodical, to use this name in preference to other titles such as *Veterinary Medical Journal* for the reason that it designated best and most exclusively the class of man who was intended to read it. Thereafter, for many years, the name became a most familiar printed title to the veterinary profession. In the year of the founding of *The Veterinarian*, the word "veterinary" had not acquired the standing of respectability, through being used as the designation of a statutory profession, which it has since obtained, and so we find one of the first members of our profession to qualify in this country, Bracy Clark, a redoubtable writer of profound classical scholarship, giving preference, for erudite reasons, to the name *The Farrier and Naturalist* to the journal which he founded in the same year. In the course of its brief existence, with the question of precision of designation always in his mind, he changed the title of his journal to the Greek word, of most highly respectable professional antiquity, *Hippiatrist*. This word, however, never gained currency, though a similar word, *Hippo-pathology*, became well known, as the title of Percivall's text-book. Very recently, again, we may discern in the employment of titles like "Imperial Bureau of Animal Health," "Research Institute in Animal Pathology" and perhaps, somewhat earlier, *The Journal of Comparative Pathology and Therapeutics*, a tendency in some quarters to think that the term "veterinary" does not embrace the science and art of all that concerns disease and maintenance in health of the domesticated animals. It would seem highly desirable that we accept the plain verdict presented in Leclainche's analysis and, at any rate for the common activities within our professional objective, employ the qualification "veterinary." Moreover, for reasons that are now becoming abundantly clear, it would be well to revert to the use of the substantive "veterinarian" in ordinary speech and writings.

A further lack of precision resides in designating comprehensively the pursuit of the veterinarian. In the Loveday Report it is called most frequently "veterinary science," but there, as in the Register of Veterinary Surgeons, it is also called "veterinary art" and "veterinary medicine." As both terms are raised in status by capitals in the Register, one assumes that either has the sanction of corporate authority. It seemed incongruous that the sanction in the Charter for the exclusive right to use the term "Veterinary Surgeon" was obtained because the practice of "veterinary medicine" was declared to be a profession (p. 5, para. 2). In France the common designation has always been "*médecine vétérinaire*," and an equivalent is used in most other languages.

And the dictionary meaning of "medicine" is "the science or art of the prevention, treatment, and cure of disease." If the recommendations of the Loveday Report come into effect the content of the first three years of the suggested curriculum may come to be looked upon very well as "veterinary science," and it will no doubt soon be familiarised as such from the conferment of University degrees in Science for this portion of the course. Then the completed five years' study might be regarded with some reason as "veterinary medicine" for the "art" would then have been acquired. It is realised that the substantive here as a descriptive term does not cover accurately such activities as "animal husbandry," and "surgery," but as a comprehensive designation of the veterinarian's whole objective study it has the sanction of long and widespread usage.

At the time of the foundation of the first veterinary society in London, Bracy Clark fulminated against the use of the coupled epithet in "Veterinary Medical Society." We believe it must have been for this reason the London society has remained simply the "Central Veterinary Society." Other veterinary societies for no valid reason of necessity that we can discover have assumed and retained the coupled qualification.

THE TREATMENT OF CANCER

As announced in the King's Speech on November 8th, the Government's programme of legislation in this Session includes a Bill for the establishment of a cancer service making available modern facilities for diagnosis and treatment over the whole of England and Wales.

Speaking at the annual dinner of the British Medical Association the same evening, the Minister of Health (Mr. Walter Elliot) said the mortality rate from cancer had been rising steadily for many years. It was a disease which did not only attack the aged, but in many instances attacks men and women in the prime of life. It caused nearly 70,000 deaths a year in England and Wales alone and an incalculable amount of suffering. He regarded it, therefore, as a matter of urgent public necessity that a sustained and organised attempt should be made to deal with this problem on the broadest national lines. It was computed to-day that not more than one case of cancer out of every four in an accessible site, and less than that where the disease was more deep-seated, was given the opportunity of cure or amelioration offered by the prompt application of modern methods, although in most cases the disease was curable if at an accessible site and if treatment was given at a sufficiently early stage. The existing facilities were mainfestly inadequate, and it was the Government's aim so to extend them that they were available to every member of the community who stood in need of them.

CLINICAL COMMUNICATIONS

Oral Administration of Brilliant Green in the Treatment of "White Scour" in Calves—A Record of Three Years' Experience

D. R. MACRAE, B.Sc., M.R.C.V.S.,
Banff

In June, 1935, on acquiring my present practice, I encountered a severe outbreak of "white scour" among late calves in several herds. Despite treatment for this condition, there was a considerable death rate, and medicaments which functioned fairly well in one outbreak failed to effect a cure in others.

With a view to reducing this death rate to the minimum, I decided to experiment with a coal-tar derivative, brilliant green, regarding the efficacy of which in preventing the multiplication of coliform organisms *in vitro*, I had some laboratory experience. I had no knowledge of the dyestuff having been previously administered orally, and the only reference to it which I could obtain at the time—Wallis Hoare's "Veterinary Materia Medica and Therapeutics"—referred to it as a non-toxic and non-irritant antiseptic.

Working on the analogy that conditions within the calf's digestive tract were somewhat similar to those in culture medium within an incubator, I decided to administer this dyestuff orally, in combination with a gastro-intestinal, antacid sedative, mistura bismuth salicyl co., which contains bismuth salicylate, kaolin and chalk. This preparation seemed most suitable for the purpose and of all preparations I had previously tried, it had given the best results in the treatment of "white scour" in calves.

I tried various concentrations of brilliant green and found the dyestuff well tolerated by calves, eventually obtaining as satisfactory results with a 1-1,000 solution of brilliant green as with stronger concentrations. I have employed this concentration throughout my experiment.

Treatment consisted in administering one to two tablespoonfuls (according to the size and age of the subject) of the brilliant green–bismuth salicyl co. combination in some water, ten to fifteen minutes before each feed of milk, and continuing the treatment till conditions returned to normal.

In some cases, if the trouble was caught early, two or three administrations only were necessary and even in more advanced cases treatment was seldom required longer than for six administrations. Even seemingly moribund animals have been brought round by a few administrations combined with common-sense attention. Where septicaemia, however, had set in, my experience was that oral administration

of brilliant green had no effect on the course of the condition.

So spectacular have been the results since the incorporation of brilliant green in the bismuth salicyl co. mixture, that I have attributed the improvement to the presence therein of the brilliant green and have ever since employed in the treatment of "white scour" in calves no other line of treatment than mistura bismuth salicyl co. containing 1-1,000 brilliant green. For all cases of "white scour" which I have treated (where the infection has not become septicaemic nor other complications have supervened) I can, up to date, claim 100 per cent. recovery.

Fellow practitioners to whom I have related my experiences and who have adopted this line of treatment, appreciate the value of brilliant green when administered in this manner.

In a few cases of diarrhoea in new-born foals, I have successfully employed this treatment when the usual lines of treatment fail, but regret to say that by so doing, I have not been able to ward off the appearance in a few days' time of "joint-ill."

In recording the above results, I consider that brilliant green is worth experimenting with further in cases of coliform infection, and that the apparent value of the dyestuff should be thoroughly tested under the varying conditions which exist in general practice throughout the country. Perhaps some day the veterinary profession may find in it an antiseptic for use in the treatment of coliform infections comparable to sulphonamide preparations in the treatment of infections by haemolytic streptococci.

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Operation for Vaginal Wind-Sucking in a Mare*

J. J. O'CONNOR, M.R.C.V.S.,
Principal, Veterinary College of Ireland, Dublin

Subject.—An aged thoroughbred chestnut mare.

History.—The mare had been under treatment for sterility due to chronic metritis caused by streptococcic infection.

The treatment consisted in irrigating the uterus with a 1-1,000 solution of iodine and the insertion into the organ of entozon pessaries and the injection of an autogenous vaccine.

After continuing this treatment for five weeks the uterus was still septic. There was a well-marked cicatrix on one of the lips of the vulva preventing complete closing of the vulvar orifice. The mare was sucking wind through the vagina occasionally, due to the incomplete closing of the lips of the vulva.

It was decided, therefore, to adopt the procedure recommended by the American veterinarian Dimock, *viz.*, to dissect the mucous membrane from the skin on both lips of the vulva from its upper commissure down to the level of the floor of the pelvis and bring the raw surfaces of the skin into apposition by means of Halsted sutures inserted through the base of the flaps so as to ensure the remaining portion of the lips coming into close apposition and preventing the sucking of wind.

Procedure.—The mare was controlled in the standing position with a side-fetter applied to the pastern of the near fore and hind legs, in the form of two ordinary casting hobbles, by a running knot passed through the second one and back through the ring on the first hobble so that it acted like a pulley and could be easily tightened or loosened and quickly removed if necessary by opening the running knot. Eudrenine was injected subcutaneously in several places along the lips of the vulva at the site of the operation. A twitch was applied but was removed as the mare resented it. She stood perfectly quiet after its removal and paid no attention to the use of the knife as the local anaesthetic was completely effective.

The mucous membrane was separated from the skin as described. The skin was held in an artery forceps by an assistant and the mucous membrane in another artery forceps by the operator.

The mucous membrane was very adherent and difficult to separate at the level of the scar.

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Peculiar Foreign Body in a Dog

J. PICKUP, M.R.C.V.S. (Barnet)
and
A. N. WORDEN, M.R.C.V.S.
(Royal Veterinary College)

The communication of Fundaminsky on p. 1221 of your issue of September 17th prompts us to record the following case.

Subject.—An eleven-years-old male fox terrier (smooth).

History.—A swelling had appeared several months previously over the front of the radius, and had slowly enlarged.

Examination.—The swelling was about three-quarters of an inch in diameter, and was situated on the antero-external aspect of the left fore-leg, about one and a half inches above the carpus. It appeared to be entirely subcutaneous, there being no visible alteration of the integument: the extensor tendons could be palpated unaffected beneath its spreading margin. It was fairly hard, and apparently painless, there being neither self-inflicted injury nor resistance to palpation.

In the belief that the growth was a benign

(*Continued at foot of column* 1, *page* 1622.)

*Demonstrated at a meeting of the Veterinary Medical Association of Ireland, held at Dublin, May 4th, 1938.

ROYAL COLLEGE OF VETERINARY SURGEONS

SPECIAL MEETING OF COUNCIL

The Loveday Report

A Special Meeting of the Council of the Royal College of Veterinary Surgeons was held at the College, 10, Red Lion Square, London, W.C.1, on Wednesday, November 2nd, 1938.

Mr. G. H. Livesey (President) was in the chair, and there were also present Lieutenant-Colonel J. W. Brittlebank, Professors J. B. Buxton, J. F. Craig, T. Dalling, Mr. H. W. Dawes, Major G. W. Dunkin, Mr. R. E. Glover, Sir Frederick Hobday, Mr. J. Holroyd, Major Hamilton Kirk, Sir John M'Fadyean, Messrs. J. W. McIntosh, A. MacKenzie, G. P. Male, Major A. B. Mattinson, Lieutenant-Colonel W. S. Mulvey, Professor J. J. O'Connor, Dr. Share Jones, Captains R. Simpson, W. K. Townson, Colonel G. K. Walker, Professor G. H. Wooldridge and Lieutenant-Colonel T. Dunlop Young.

The minutes of the previous Special Meeting were read and signed as correct.

Letters of apology for absence were received from Messrs. J. Dodd, P. F. Dolan, Captain T. M. Mitchell, Messrs. W. Nairn, Arnold Spicer, J. F. D. Tutt and Dr. A. W. Whitehouse.

Report on Veterinary Education

The President explained that the reason for calling the Special Meeting of Council was that the Report of the Loveday Committee which had been referred by the Council to the Standing Committees for consideration had been considered by the Examination Committee at a meeting held on October 19th, and that at that Committee the opinion was expressed that as a matter of urgency, in view of the fact that comments on the report were already being published, the President should summon a Special Meeting of Council to consider the report in order that a statement might be prepared without delay for publication. Copies of the report had been circulated to the members together with a memorandum prepared by the Secretary.

On the motion of Professor J. F. Craig, seconded by Major G. W. Dunkin, it was resolved: "That the Council resolve itself into Committee for the consideration of the report."

In Committee.

The Council proceeded to discuss the report, and after prolonged debate the following resolutions were passed:—

I. "That the Council is strongly opposed to the recommendation contained in paragraph 29 (*i*) of the Report that the Charter of the Royal College of Veterinary Surgeons should be amended to provide for the appointment of direct representatives of the Universities of London, Liverpool, Edinburgh, Glasgow and Cambridge on the Council of the College."

II. "That the Council expresses its disapproval of the recommendation in paragraph 29 (*iii*), namely, that the said universities should consider the institution of a degree in science which veterinary students can obtain in the first three years of their course after studying the subjects required for the corresponding M.R.C.V.S. Examinations."

III. "That the Registrar be instructed to prepare a statement embodying the reasons for the above resolutions."

IV. "That a communication be addressed to the affiliated colleges asking for their observations on the report, particularly in regard to the proposals which affect the relationship of the R.C.V.S. to the affiliated colleges."

V. "That the next meeting of Council be called on November 16th, 1938, at 2 p.m."

On resuming its sitting as a Council the above resolutions were duly put to the meeting and unanimously adopted.

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neoplasm, it was decided to remove it surgically. Accordingly, the surrounding area was prepared, and the site infiltrated with "novocain" local anaesthetic. On making the skin incision, a bunch of small pedunculated masses appeared, the stalk of each being composed of connective tissue and the terminal portion of a lump of whitish tissue, about one-quarter of an inch in diameter. A few independent masses were also present. The whole was removed, chiefly by blunt dissection, and in the middle of the pedunculated masses was found a round yellow body, about the size of a pea: this also was joined to the remainder by a strand of connective tissue. The whole "growth" was preserved in 10 per cent. formalin for future examination. The surrounding area appeared to be perfectly healthy, and none of the deeper tissues seemed in any way to be connected with the "growth." The wound was closed, and two days later the patient was discharged. Recovery was complete and uneventful.

The removed "growth" was later handed to Mr. E. G. White (Royal Veterinary College), who kindly carried out a histological examination. The pedunculated masses proved to be of pure fat, joined by strands of connective tissue. The pea-like body was, in fact, a pea! It contained only vegetable tissue. (No starch reaction was given with iodine).

No explanation is offered concerning the appearance of the foreign body in such a position. The tissue reaction is deemed to be interesting.

The Veterinary Record
November 26th, 1938.

The Loveday Report and the Royal College of Veterinary Surgeons

WE publish on the opposite page the minutes of an important Council meeting of the R.C.V.S., at which the recommendations of the Loveday Committee on Veterinary Education were discussed in committee.

Briefly, the minutes refer to resolutions of the Council rejecting two of the Loveday Committee's recommendations. Our own view upon the Loveday Report and its recommendations we have for some time been giving our readers in detail.

We note that the Registrar has been instructed to prepare a statement embodying the reasons for the above resolutions and we know that the profession await with interest the publication of the reasons which have led the Council to the conclusions embodied in the resolutions passed at their recent meeting.

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The Loveday Report:

THE LAYOUT OF VETERINARY EDUCATION; "THE BASIC SCIENCES," AND UNIVERSITY DEGREES IN VETERINARY SCIENCE

> "In comparison with the present curriculum," the Committee say, "the scheme outlined possesses two outstanding advantages: the subjects are so arranged that the student is taken from one to another in logical sequence, and the first three years are devoted to a combination of scientific studies on the successful pursuit of which universities may be reasonably expected to be willing to award degrees" (paragraph 43).

THIS claim can be examined from four standpoints: firstly, the University Degree in Veterinary Science and the need for regularising and facilitating its attainment; secondly, the place and scope of the "basic sciences"—as they are called a little later in the Report—in veterinary education; thirdly, the proportion of the course that ought to be allotted to them; and, fourthly, the advantages resulting from closer association with the universities.

(1) *The University Degree in Veterinary Science; the need for regularising and facilitating its attainment.*—In the preceding editorial article we gave reasons which would suggest that there are decided advantages in the Loveday plan whereby the general layout of veterinary education is conceived as that of an "applied science," which necessarily implies approach to the objective of application through an acquaintance with one or several "pure" or "basic" sciences. The Committee have indicated precisely in their programme what are the subjects of study that constitute these "basic sciences." In the main, their scope resembles that of the programme upon which the University of London has awarded a Degree in Veterinary Science since 1906 and the University of Edinburgh since 1911; the University of Liverpool has included the clinical subjects within its Degree course. The Loveday Committee have, with sound reason, referred to the difficulties now placed in the way of students working for the Degree concurrently with the Diploma course. These difficulties entail much hardship arising from the necessity for studying the prescribed degree subjects longer and more intensively than is required for the Diploma, with consequent overlapping of scientific and clinical studies during the latter part of the dual course. Moreover, the final degree examinations cannot be conveniently taken until some time after the close of the Diploma course. This means that whereas the ordinary Pass Degree of a University can be taken in three years after matriculation, it takes usually at least two years longer to obtain the Degree in Veterinary Science. We suspect that many more students would take up the degree course if the present confusion between the diploma and the various degree courses was removed. One advantage of possessing a degree is that it can lead to a Doctorate for those who have opportunities to prepare and care to submit a thesis, and provided this Doctorate is a true hall-mark of work accomplished it carries with it other advantages, among which may be mentioned the titular recognition of the proper social status of the possessor among the educated professional classes. On the other hand, any proposal that might lead to a person becoming marked out from the rest of his fellows by a hollow title, such as can be achieved after a comparatively

short stay at certain universities abroad and is not always the brand of intrinsic merit, must be deemed entirely unworthy. We are convinced after most careful study of the recommendations that the Loveday plan is a straightforward one which aims at regularising the anomalous position in the above respects in which the veterinarian finds himself, and at making a University Degree attainable without unnecessary embarrassment, in a fully rightful and deserved manner, during the normal progress of his education.

(2) *The Place and Scope of the "Basic Sciences" in Veterinary Education.*—We need hardly dwell upon the place of these studies any longer in view of what has already been said about the general conception of an "applied science."

A good deal might be said about the details of study comprised under the different subject headings. For example, upon the subject of anatomy, the Committee heard criticisms relating to the time now given to descriptive study and the choice of animal as type-specimen for dissection. These are details which may well be left for expert discussion by Boards of Studies and teachers. But in another sense, although the distribution of the subjects follows, as the Committee claims, a logical sequence, something must be said concerning the different emphasis now apparently recommended for the physiology and pathology groups of subjects. The Committee have rightly given increased emphasis to the study of physiology, and have introduced an innovation in specifying extra tuition in applied physiology; instruction on these different aspects is increased to cover two years. This is highly necessary in view of the advances under this heading in recent years and the increasing relevance of the knowledge obtained to the elucidation of a great variety of problems in health and disease specially arising in the domesticated animals. It also includes much fundamental teaching which has, up to now, been done with animal husbandry. The study of veterinary pathology, including bacteriology and parasitology, appears to be compressed within a much shorter period although it should be noted that the actual hours of teaching are not specified. Criticism has been heard that this disparity is not consonant with realities. Since the beginning of the Pasteurian era the contribution of "bacteriology" to the advance of veterinary science has been enormous. The studies (immunology, etc.) that have arisen from it have contributed fundamentally far more to our understanding of disease processes than might be anticipated from a systematic study of a particular group of living organisms. For several years at the schools "bacteriology" became almost synonymous with scientific veterinary research, and contributed the lion's share to the rapid advance of veterinary "preventive medicine." The fruits of these studies have been abundant and are still far from being exhausted. We need instance only the remarkable advances in our knowledge upon the preventive treatment of certain widespread sheep diseases. It would be a pity if any change were introduced which would bring about a slackening of the pace in this prolific field.

Close inspection of the whole programme, however, will reveal, we think, that the disparity is more apparent than real, and that the plans for the teaching of the "basic sciences" can hardly be improved upon.

The apparent disparity relates, we believe, to the meaning of the word "pathology." In human medicine and, in this country, usually in veterinary circles, the word is construed in the narrow sense of morbid anatomy and histology. Bacteriological, immunological, and some other studies are commonly grouped with it. But it is not construed in this sense throughout the veterinary world. The titles of well-known Continental veterinary text-books on "The Pathology of the Domestic Animals" (Friedberger and Fröhner; Hutyra and Marek) embrace a range of subjects which is usually covered here by the term "medicine."

The truth seems to be that "veterinary pathology" in the narrowest sense is a composite subject which would fittingly find its proper place as a "basic" subject precisely where it has been allocated in the Loveday plan. Pursued further in its immediate application to specific veterinary problems it tends to broaden and form part of the field designated, again somewhat arbitrarily, "preventive medicine"—a subject which is placed at the end of the vocational curriculum in the Loveday plan. We shall discuss this part in our next leading article, but one point needs to be stressed at once, with which all who have contributed anything to the advancement of knowledge within the field of veterinary preventive medicine we feel are bound to agree, namely, that the teaching of so-called "veterinary medicine" cannot be undertaken by a single exponent, because he is unlikely to be thoroughly competent in both the clinical and preventive

aspects of this subject as it is now laid down. It is necessary to stress this reality at this stage. Otherwise the heads of departments of pathology may feel that the Loveday plan envisages curtailment of their proportionately large share of the activities at the schools and that we subscribe to this recommendation. That is not our view of the Loveday plan. All that seems to us to be required is some rearrangement of subjects in the final years, so that the "basic" knowledge of "veterinary pathology" is made to carry a well-designed superstructure of "preventive medicine."

(3) *The Time allotted to the "Basic Sciences."*—We anticipate criticism on the score that a larger proportion of the course, namely, three years, as against two, is given up to "theory" than to "practice," which receives only two years. We have already dwelt upon the increased facilities which the Loveday Committee have recommended for practical studies. We have also stated in a preceding leading article laying down some general principles in devising any scheme of veterinary education, that one of its purposes ought to be to equip the student to continue to acquire knowledge and skill throughout his career. This desideratum cannot readily be achieved unless the graduate has been disciplined by a sufficiently prolonged and intensive period of study in the basic sciences so that he is fitted to acquire knowledge from the steadily advancing field of science and make proper use of his skill. The period of three years in scientific study cannot be regarded as too long to fit him for his lifework, and the two-year period of vocational study ought to be looked upon merely as an initiation under good guidance to his career. We might further point out to such critics that under the present system, there is even less time available for the purely clinical studies, for much time is now taken up in the fourth year with the study of basic pathology, bacteriology and systematic parasitology. Only an introduction to clinical study can be obtained before the student enters his final year.

(4) *The Advantages resulting from Closer Association with the Universities.*—We can readily foresee that the proposal to follow the above arrangement of the course of study so that "Universities may be reasonably expected to award Degrees" may create a feeling of uneasiness in the minds of large numbers of our colleagues. They may be apprehensive lest the relegation to any extent of control over the curriculum and examinations to outside bodies may violate the authority of a domestic institution, the Council R.C.V.S., the establishment and conduct of which remains a lasting credit to the British veterinary profession. Furthermore, they may apprehend that veterinary studies will be treated as of minor and subsidiary concern within the walls of the universities, and probably be pursued by students in large mixed classes devoted to more general teaching upon the subjects rather than to the aspects of these subjects which interest the prospective veterinarian. They may again hold that such comparisons as are available hitherto in the world do not supply incontestable evidence that the products of veterinary teaching in special University Faculties are indisputably better than those from the autonomous schools. The Examinations Committee of the Council R.C.V.S., they will say, has hitherto done its work extremely well and is in touch with the life and work of the profession. Subjected at all the schools to similar tests, carried out by a Court of Examiners that has acted scrupulously fairly, students have been assessed in regard to their proficiency and relative abilities in a manner which it has never been seriously doubted is a fair one. The merits of the products emerging from the different specified universities would not be so well known. Ividious comparisons might be made, based upon the relative standings of the universities rather than upon the quality of the teaching and the ability of the graduates.

We shall need to revert to some of these contestations in discussing finally the machinery recommended by the Committee for the supreme control and co-ordination of veterinary education. Nevertheless, after weighing them carefully, we believe few will seriously dispute the justice of the following paragraph (14) quoted from the Report:—

> "According to the evidence given to us the veterinary student presents somewhat of a paradox. He is represented as suffering from an 'inferiority complex,' yet actually the qualities which he requires, and often possesses, are of a high character both intellectually and physically. These qualities are intelligence, concentration, tact, and robust physique. The sense of inferiority was represented to us as being largely due to lack of contact with, and participation in, the social life of other students; and this again is a matter which our recommendations should to some extent remedy."

Historically, the reason why the R.C.V.S. originally in 1844 took over the conduct of

examinations was clearly because of the scandalous manner in which the examinations had been undertaken for about half a century at the London Veterinary College, by a few medical men, and because veterinarians were excluded from participation. But for a small mishap, the breakdown in Youatt's health in 1833, the close association of veterinary teaching with the universities might have dated back to the year 1831—the year in which he began his course of veterinary lectures at the new London University in Gower Street. "We can fully enter into the enthusiasm of this go-ahead man in succeeding in getting his degraded profession recognised by a university, for he knew the value of university affiliation."—(General Smith's *History*. **3.** 142.) A "loose connection" (Loveday Report, paragraph 22) between the London School and the same University was not to come about again until the year 1906. Nobody has ever disputed the value of this connection or has not coveted the distinction of the conferment of the Degree which the connection provides. Why not make it, therefore, readily accessible to all our students, if by losing none of our hard-won standing as a corporate body, we shall lose in some measure the untrue but nevertheless centuries-old stigma of belonging to a historically "tainted and degraded calling"? There can be no doubt that with university status the influence of the profession will increase, not diminish, in the affairs of the nation.

ALLEGED RAGWORT POISONING OF CATTLE IN DORSET

At a recent meeting, the Dorset Agricultural Committee, discussing the extermination of ragwort, were informed by Mr. T. R. Ferris (Director of Agriculture for Dorset) that there had been reports of deaths from ragwort in cattle in Dorset. In one case 15 head of cows succumbed and in another six or seven. There was no question about ragwort having caused the deaths of these cattle. As a rule the trouble started through cattle eating ragwort in hay, especially if it had been chaffed.

The Chairman said the Ministry viewed the question of injurious weeds so seriously that they were prepared to pay the whole of the cost of a weeds officer each summer.

The weeds officer stated that it was generally found that where sheep were grazing the amount of ragwort was practically nil.

Major F. Holland Swann said he had recently toured Scotland, where ragwort was "universal." Cattle were grazing everywhere and did not seem any the worse for the ragwort.

ABSTRACTS

[Cysticercosis in Swine and Bovines, with special reference to South African Conditions. Viljoen, N. F. (1937.) *Onderstepoort J. Vet. Sci. and Anim. Indust.* **9.** 2. 337-570.]

In this paper, of combined veterinary and medical interest, Viljoen presents a mass of information compiled from an extensive literature of almost 300 references and from experimental data on porcine and bovine cysticercosis. The author's thesis is divided into six parts. Part I includes an etymological discussion and an historical survey and review of the early literature and researches on *Cysticercus-Taenia*. Part II consists of a survey of the incidence of cysticercosis in swine and bovines in the various countries of Europe, Asia, Oceania, the Americas and Africa. Different conditions, including the importation of stock and the absence of reliable statistics in some countries, necessarily render some of the data more speculative than actual. The author's paper has particular reference to cysticercosis in South Africa and he points out that, from records obtained from the large majority of abattoirs in the Union, the incidence of *C. cellulosae* in pigs varies between a fraction of a percentage and 25 per cent. A definite "black" zone is traceable on the map of the Union in which percentages in excess of 10 were found. The incidence of *C. bovis* is much lower than that of *C. cellulosae* in South Africa but, while there has apparently been a slight decrease in the incidence of the latter parasite in the Union, there has been a decided increase in the former during the last few years.

Part III is devoted to the morphology, development and life-cycle of *Cysticercus cellulosae—Taenia solium* and *Cysticercus bovis—Taenia saginata*. There follows a discussion on the hosts and pathogenicity of *C. cellulosae*. In South Africa, *C. cellulosae* infection is usually of a very heavy, generalised nature and a ratio of 5 : 1 is fairly indicative of heavy to light infestations. In the case of *C. bovis* infestation, the reverse is the case. Since infestations in pigs are usually heavy, definite predilection sites are only sometimes mentioned. In bovine infestations, however, Viljoen stresses that the muscles of the hind quarters, in addition to the common predilection sites found by workers in Europe, are very frequently locations of infection and, since the hind limbs are not incised in measles inspection, the author recommends additional deep incisions into the adductor muscles, parallel and just below the pelvic symphysis, without mutilating the quarter. Regulations should also provide for incising the hump area, another important site of infection. A thorough inspection technique is seriously

advocated as the author found four times as many measly carcases compared with figures recorded prior to his adoption of a thorough inspection, coupled with long and deep incisions into the prescribed sites. In discussing meat inspection procedure in Great Britain, the author points out that the technique falls far short of that practised in certain other countries and that if one as thorough as that in South Africa or Germany was to be instituted the incidence of *C. bovis* in the United Kingdom would be found to be considerably higher than at present recorded and might " even startle some authorities." Clinical symptoms of *C. cellulosae* infection are extremely rare in the pig and during a three months' inspection of living pigs' tongues, exactly 25 per cent. of the total measly pigs slaughtered showed cysticerci in their tongues ; thus measles can only, with certainty, be diagnosed in very grossly infested cases. The scavenging habits of the pig coupled with the totally inadequate hygienic arrangements on many primitive farms and in native locations are the main origins of infection in the pig. The diagnosis and differential diagnosis of *C. cellulosae* in pork and infections with this parasite in other animals are also discussed as well as the symptoms and diagnosis of *C. bovis* infection. Clinical symptoms of cysticercosis in bovines are even more rare than in porcine cysticercosis and environment and physical conditions appear to play a large part in the natural mode of infection of the adult bovine although, in South Africa, the main source of infection, in the author's opinion, is the native's insanitary customs.

Part IV deals with the judgment of measly carcases in various countries and with the destruction of cysticerci in meat. After outlining the various methods of testing the viability of cysticerci, the effects of heat, pickling and prolonged cold storage on cysts, observed by other workers, are discussed. The results of viability tests, carried out by the author, with measles from chilled and frozen carcases varied very slightly from those obtained by European workers. He observed that *C. cellulosae* can survive the death of its host and evaginate its scolex by at least 41 days, under ordinary chilling room conditions ; it may, in exceptional cases, survive four days' continuous freezing at –10° C. in a 15 lb. shoulder of pork. Similarly, in an exceptional case, *C. bovis*, in a 288 lb. side of beef subjected to five days' continuous freezing, was still capable of evaginating its scolex. In no case was it found that *C. cellulosae* survived a period in excess of four days' freezing, or *C. bovis* in excess of five days' freezing.

Discussing the importance of cysticercosis in meat in relationship to public health, the author points out, in Part V, that simple infestations with either *Taenia* as a rule do not have any serious damaging effects on the human host, but anaemia, with resultant debility, may follow. Both tapeworms show amazing tenacity of life and may remain alive for many years and both species may be responsible for very serious sequelae, *e.g.*, chorea and psychosis with dementia praecox ; comparatively large numbers of cases of epilepsy in humans have been found to have been due to *C. cellulosae* in the brain, etc. In urging the necessity for eradication of Cysticercosis—Taeniasis, in Part VI, Viljoen outlines a plan, at least so far as South Africa is concerned, in which he mentions that there should be (1) closer co-operation, but not encroachment, between members of the medical and veterinary professions, each of whom should be independently responsible for the destruction of the life-cycle at the respective stage which falls within his province ; (2) closer inspection of swine and bovine carcases at abattoirs in the larger urban areas ; (3) compulsory meat inspection at all other slaughter poles by qualified meat inspectors ; (4) education of Europeans and natives in elementary hygiene ; (5) abolition of all insurance schemes, which include indemnification for measles, at abattoirs ; (6) compulsory slaughter of all pig carcases intended for sale on urban markets, at urban abattoirs, and (7) free treatment of *Taenia* carriers and the offer of rewards to all such carriers for the production of the tapeworm head.

J. N. O.

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[Treatment of Brucella Infection in Animals with an Emulsion of Live, Avirulent Brucella abortus suis in a Non-absorbable Base. Dubois, Ch. (1938.) *Bull. Acad. vét. Fr.* **11.** 6. 383-404.]

This forms the third and final report on extensive field investigations including over 23,000 sheep, cattle and goats during a period of three years. The following conclusions are reached with regard to treatment of these animals suffering from or harbouring brucella infection :

1. The vaccine is harmless to sheep, cattle and goats, no matter their age or sex. It has no deleterious effect on the milk yield of lactating females.

2. Pregnant female animals can be inoculated without danger at any stage of gestation.

3. Use of the vaccine is not accompanied by any note of transmission of infection to man. Indeed, the author claims that in districts where his vaccine has been used, the incidence of undulant fever has very definitely been reduced. This is considered to be due in the main, to reduction in the source of infection for man consequent upon the fall in the number

of abortions. It has been proved that the bacteria of the vaccine remain localised in the nodule formed at the site of inoculation and are not excreted in either the urine or milk, so that there is no fear of spread of infection from this source. Accidental injection of vaccine into man during inoculation of cattle was without harmful effect.

4. Use of the vaccine gives a marked reduction in the number of abortions and often to an appreciable decrease in the number of cases of sterility. Before use of the vaccine, among 17,421 ewes there were 2,298 abortions and among 1,426 goats, 229 abortions. After vaccination, the number of abortions was reduced to 252 for the ewes and to 20 for the goats. For 4,267 cows belonging mainly to farms badly infected with brucella, the number of abortions was reduced from 795 before inoculation to 170 after. Three-quarters of these cows were pregnant at the time of inoculation.

5. Following use of the vaccine, there is an increase in the number of young born and their development is normal.

6. A single injection of vaccine is sufficient. Protection conferred by it has been such as to allow the normal occurrence of one and even two successive pregnancies in the case of the ewe and goat, and of one in the cow, even when inoculated in the non-pregnant state. Only in badly infected surroundings where heifers and non-pregnant cows will not conceive till three or four months after vaccination should reinoculation, toward the third month of gestation, be carried out.

[The vaccine consists of avirulent, living *Brucella suis* suspended with lycopodium spores in liquid paraffin and lanolin. It is injected subcutaneously over the thorax behind the elbow in sheep and goats and in the neck or dewlap of cattle. Details are to be found in earlier papers.]

J. W. W.

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[Possible Rôle of the Rat in the Spread of Contagious Abortion. (Trans. title.) Sandholm, A. *Zschr. Infektkr.* **53.** 3. 201-210.]

A number of rats was divided into five groups. Groups 1, 2 and 3, consisting of twelve, six and seven rats respectively, were fed emulsions of *Br. abortus* in milk. In group 1 the rats were killed at daily intervals. In no case were the organisms recovered by cultural methods, but blood serum from four of the rats agglutinated *Br. abortus*. Guinea-pigs were inoculated with material from the rats and three showed a slight agglutination response while two yielded the organism on *post-mortem* examination.

In group 2 emulsions of the faeces of the presumably infected rats were injected into guinea-pigs. None of the latter became infected.

Group 3 rats were treated similarly to group 1 except that a mixture of three strains of *Br. abortus* was used. One positive result was obtained in this group.

Groups 4 and 5 consisted of six rats each. Group 4 received infected cotyledons in milk, group 5 infected cotyledons mixed with flour. The procedure employed to determine infection was similar to that used in the first group and one positive result was obtained in group 4. All the other animals in these two groups yielded negative results.

The author concludes that the rat is not a suitable host for *Br. abortus*.

P. S. W.

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[Influence of the Dose of Virus Employed in Testing the Immunity of Cattle Vaccinated against Cattle Plague. Bennett, S. C. J. and Evans, J. T. R. (1938.) *J. Comp. Path.* **51.** 1. 1-8.]

In view of conditions in the Sudan it was important to ascertain whether cattle immunised to cattle plague by a glycerinised virus would break down to the large dose of virulent blood used for the hyper-immunisation required for the production of antirinderpest serum. Controlled experiments are recorded which indicate that the reaction is no more severe when a test dose of 500 c.c. of virulent blood is used than when 1 c.c. is used. No deaths occurred in 25 cattle, some of which had been vaccinated as long as one year previously, when tested with virulent blood in doses of 500 c.c.

U. F. R.

CATTLE BOT-FLIES IN NORWAY

"In Norway, as in most European countries, the damage caused to cattle and hides by the presence of bot-flies, *Hypoderma bovis and H. lineatum*, was excessive up to about 1920. L. Reinhardt Natvig summarises the position by stating that in 1922 the loss in England was £15 million, and for England (that is, Great Britain) and its colonies £30 million. Similar heavy losses are given for other countries. In many countries, however, the last twenty years has seen the institution of a vigorous campaign against these insect parasites, which, aided by the discovery of the value of derris in destroying the bots, has had strikingly successful results. Natvig illustrates the effect of the measures taken in Norway by means of two maps, the first showing the distribution and incidence of bots in cattle in South Norway in the years from about 1875 to 1920, and the second showing the same features in 1936 (*Naturen*. 62. 243. 1938). No evidence could be more convincing of the value of suitable preventive measures firmly and generally applied." —*Nature*, October 22nd, 1938.

REPORTS

[Uganda Protectorate. *Annual Report of the Veterinary Department for the Year ended December 31st,* 1937. (POULTON, F. W.) pp. 25. Numerous tables. 2 appendices.]

I. Rinderpest has again taken up a considerable amount of the time of the Department to the detriment of other work. Apart from a fresh introduction of the disease from Kenya into Budama District of the Eastern Province, the disease was confined to Buganda and the Western Province. The Budama outbreak was soon suppressed, but unfortunately wild buffalo had become infected and they were responsible for several delayed extensions which were again quickly suppressed. In Buganda, rinderpest was present in the cattle of two districts as a result of outbreaks in 1936. To complicate matters, wild game was infected, not only in areas where the disease was still active in cattle, but also in areas where rinderpest had been eradicated. As a result rinderpest extensions and sporadic outbreaks due to infected game occurred over a considerable area of Buganda; game carried it to South Toro and two neighbouring areas of Ankole District in the Western Province. Control was by quarantine, serum and virus, and vaccine. Of other diseases, foot-and-mouth disease is now regarded as enzoötic, trypanosomiasis, anthrax, blackquarter and tick-borne diseases are all serious in their respective areas but little work on these was possible owing to lack of staff.

II. Work on Glossina investigation, and reclamation, is still going on in South Ankole; the clearing and burning of tsetse haunts has not always led to a disappearance of the fly and as yet the reason is not clear. Generally speaking, a considerable reduction of *morsitans* has taken place in South Ankole, and experimental herds of cattle are still doing well. [Before any conclusions can be drawn regarding the possibility of eradicating *G. morsitans* by this method, more extended experiments are necessary.]

III. Three stock farms are maintained (a reduction of one), and herds of all the local breeds of cattle are kept for selective breeding experiments and for observations on utility and disease. Sheep, goats and poultry are also kept for similar reasons. A steady improvement is occurring in the class of animal. These farms also provide valuable material for the laboratory.

IV. The castration of scrub stock continues to increase, this year's total of 96,900 cattle nearly doubling that of last year. Propaganda to improve the quality of hides and skins by shade drying is being continued.

V. An endeavour is being made to increase the number of stock markets; these have been initiated in recent years in several districts of the Eastern Province. Several new areas are being tried out but native custom and conservatism makes progress slow.

VI. In appendix I is the report of the Senior Veterinary Research Officer. In his laboratory 8,395 litres of anti-rinderpest serum and 344·9 litres of anti-rinderpest vaccine were prepared. An attempt was made to increase the titre of anti-rinderpest serum by injecting hypodermically 40 c.c. of spleen extract in addition to virulent blood when hyperimmunising. Virulent blood is always given intravenously to serum producers. Vaccine production continued to prove satisfactory. An endeavour was made to establish a neurotropic strain of rinderpest virus in the brains of white mice; attempts were also made to grow the virus on the chorio-allantoic membrane of developing chicks and on a culture medium consisting of a tryode solution at *p*H. 8·0 plus 10 per cent. normal ox serum. These attempts have so far been unsuccessful. Observations were made on rinderpest occurring in game kept at the laboratory. Work on *T. rhodesiense* in three zebu cattle was abruptly terminated by the deaths of these animals from lightning; up to the time of their deaths they proved to be resistant. Surfen "C" failed to cure calves injected with *T. congolense.* Turning sickness is still under investigation; all attempts at transmission failed, but *post-mortem* lesions suggest a close connection with East Coast fever. The comparative resistance of zebu and Ankole cattle to tuberculosis is being studied, and work to date indicates a definite resistance in zebu calves to artificial inoculation. Actinomycosis is reported for the first time in Uganda. A preliminary bacteriological examination of the Kampala milk supply indicates the milk to be very dirty, *B. coli* being present in 1/10,000 c.c. Experiments proved, that a temperature of 50 c.c. for one minute was lethal for 75 per cent. of *Cysticercus bovis* cysts; meat boiled for one to one and a half hours was completely sterile.

An investigation into the deaths of hippopotamuses occurring in Lake George was attempted. Blood and tissue films did not provide useful data. A *Salmonella* belonging to the paratyphoid "B" group was isolated but could not be definitely incriminated owing to the difficulty of working with these huge pachyderms.

VII. The veterinary school was carried on with some difficulty at the laboratory owing to the lack of hostel accommodation. All four final year students passed their examinations.

R. F.

[City of Sheffield. *Annual Report of the Veterinary Department for the Year ended December 31st, 1937.* (Salusbury, H. M.).]

In presenting his annual report for the year 1937, the Chief Veterinary Officer, Mr. H. M. Salusbury, has dealt with the duties carried out by the Veterinary Department under three headings: Diseases of Animals, Inspection of Meat and other Foods, and the Elimination of Tuberculosis Infection from the Milk Supply.

The report is concise and the scope of the duties might be summed up by saying that all matters pertaining to animals under the Diseases of Animals legislation, the meat inspection of all animals slaughtered in the Corporation abattoir and one remaining private slaughterhouse attached to a bacon factory in the city, and the supervision of animals owned by the Corporation were dealt with in the Department.

The number of cases of scheduled disease confirmed during the year were as follows: tuberculosis, 109; anthrax, 1; swine fever, 9.

It is pointed out that the number of cases dealt with under the Tuberculosis Order was the highest on record and the following methods of their detection are interesting.

By routine dairy inspection 58 cases were discovered, 19 of which were affected with udder tuberculosis.

Clinical examination following biologically positive post-clinical herd samples 29 cases, 19 of which were affected in the udder.

Clinical examination following biologically positive Medical Officer of Health samples six cases, five of which were affected in the udder.

Reported by owners 16, six of which were affected in the udder.

Tuberculosis of the udder constituted 45 per cent. of the cases dealt with, and of the total cases dealt with 69 were advanced and 40 not advanced, the average compensation paid to owners being £6 1s. 3d.

Other duties under the Diseases of Animals Acts were mainly of an administrative nature, such as the issue of movement licences, duties under the Transit of Animals Orders, *e.g.*, the provision of cleansing and disinfection facilities for vehicles, and so on.

In the section of the report dealing with work in connection with the inspection of meat and other foods it is noted that 468 tons of meat and offal were condemned and that a further 1,322 tons of other inedible offal were purchased by the Corporation and a large proportion was mixed with the condemned meat and manufactured into by-products.

Tuberculosis accounted for 85 per cent. of the condemnation in carcases, 672 whole carcases and 2,277 part carcases being condemned for this disease alone.

Seven hundred and thirty-six animals were slaughtered in an isolation slaughterhouse set apart for diseased or suspected animals; of these 86 were rejected from the lairage in the abattoir by *ante-mortem* inspection and transferred to this slaughterhouse, 213 were animals dealt with under the Tuberculous Order and the remainder emergency slaughter cases.

Under the Slaughter of Animals Act the department was responsible for the mechanical stunning of all the animals in the abattoir before slaughter.

A list of foods, provisions, etc., other than meat condemned in the city is also given.

Under the section dealing with milk legislation it is noted that 44 samples of milk taken from supplies brought into the city proved tuberculous.

The Corporation maintain a herd of tuberculin-tested cattle and there is only one other producer in the city who holds a licence to produce tuberculin-tested milk, which is accounted for by the fact that the majority of the producers have flying herds.

A list of prosecutions taken during the year is also given.

Study of the report enables the reader to realise the amount of useful control and the prevention of overlapping which pertains when the inspection of the live and dead animal is carried out under the same veterinary supervision. That the same procedure should be adopted throughout the country seems to be a point that the profession should never cease to keep before the public.

The clean milk tests which were started in 1929 by the local authority in Stirlingshire in conjunction with the West of Scotland Agricultural College, show a falling off in the number of farmers in the county participating in the test in the past year. Of 187 samples of milk submitted, 72 fulfilled the conditions of cleanliness and butter fat content of certified milk; 46 fulfilled the conditions of cleanliness and butter fat content of tuberculin-tested milk; 24 fulfilled the condition of cleanliness of tuberculin-tested milk, but failed to reach the standard of 3·5 per cent. butter fat. In other words, 76 per cent. of the samples submitted satisfied the conditions of cleanliness applicable to designated milk.

* * * * *

In reference to a statement made by the Ministry of Agriculture, in a recent issue of its weekly Market Report, the *Scottish Farmer* observes: "With a total output valued at over £3,000,000 a year, shipbuilding has always been regarded as Ulster's most important industry; and to townsmen in Northern Ireland it must have been a surprise to learn that the poultry industry, which they had regarded as being of minor importance, was worth £3,280,000 a year to the province. If Belfast's reputation for shipbuilding has been the pride of Ulstermen the world over, it would seem that the province's progress in developing the poultry industry can well claim to be the pride of Ulster agriculturists."

N.V.M.A. DIVISIONAL REPORTS

Veterinary Medical Association of Ireland*

MEETING IN DUBLIN

The May (Spring Show) General Meeting of the Veterinary Medical Association of Ireland was held at the Veterinary College, Ballsbridge, Dublin, on Wednesday, May 4th, 1938.

The following members were present: Messrs. M. Donohoe, F. S. Ringwood, Professor W. Kearney, Messrs. G. T. Dunne, A. A. Donnelly, J. D. Whitty, J. J. Condon, M. Purcell, D. B. Taylor, P. F. Dolan, R. A. S. Coulter, W. E. McDonald, E. V. Kelly, J. J. English, J. D. O'Connor, L. F. Doyle, John M. Crowe, J. M. Morris, T. A. Mernagh, P. E. Mullaney, J. E. Kenny, S. Conway, J. P. Nowlan, Hugh N. Spears, G. A. Morrin, H. Bisset, L. M. Magee, M. J. O'Meara, T. J. McDonald, P. A. McGeady, W. Joyce, T. McGaughey, P. A. McCorry, F. Staples, F. St. G. Sleith, W. Burke McAleer, J. J. Cosgrove, E. W. Little, F. J. Daly, M. J. MacClancy, J. S. MacCann, J. Dodd, M. T. Byrne, J. F. Timoney, H. R. Langley, R. R. Pierse, A. J. MacDonald, Professors A. F. O'Dea, J. J. O'Connor, T. G. Browne, Messrs. F. O'Leary, D. Reeves, P. A. Rogan, P. Hayes, S. O'Donovan and J. M. Murphy.

Demonstrations

The proceedings commenced at 3 p.m., with the following demonstrations:—

(i) "Intravenous injection and the taking of blood samples," by J. S. MacCann, M.R.C.V.S., Tullamore.

(ii) "Double intradermal tuberculin test in cattle," by F. J. Daly, M.R.C.V.S., Swords.

(iii) "Johnin test," by Professor A. F. O'Dea.

(iv) "Passing the stomach tube in the horse," by Martin J. Byrne, M.R.C.V.S., Veterinary College.

(v) "Nerve blocking of the limbs in the horse," by Professors J. J. O'Connor and T. G. Browne.

(vi) "Tuberculin testing of pigs," by Professor A. F. O'Dea.

(vii) "Operation for vaginal wind-sucking in a mare," by Professor J. J. O'Connor.

I.—Intravenous Injection and the Taking of Blood Samples

Mr. J. S. MacCann demonstrated the new method of treatment for actinomycosis by intravenous injection, as described in the *Journal of the American Veterinary Medical Association*.

The subject was a lactating cow, 5 years old, 9½ cwt. in weight. Mr. MacCann's technique was as follows: Having cleansed, shaved and disinfected the skin, the vein was raised by a cord round the neck. A bleeding-needle, attached to a Hewlett's calcium gluconate apparatus was then inserted into the vein and one ounce of sodium iodide dissolved in a pint of sterile water was injected slowly—occupying a period of about 15 minutes. After-treatment consisted only of swabbing the skin at the site of inoculation with methylated spirit to remove any trace of blood.

The demonstrator said that when injection is made slowly no injurious effects, immediate or remote, appear to be produced. Should an animal during injection show any sign of weakness or collapse, administration should be stopped immediately. He had not so far experienced any untoward symptoms. As yet he had not sufficient experience of this method of treatment to warrant the expression of a definite opinion on its merits in the treatment of actinomycosis affecting bone, but in the treatment of the disease affecting soft tissues it appeared to be effective. It had the undoubted advantages that it impressed the client, that it cannot be carried out by a quack, and that results are more quickly obtained. Improvement is usually noticeable in two or three days and if symptoms have not disappeared in ten or twelve days, he repeats the injection. He warned the members against using this treatment on pregnant animals, as it is likely to cause abortion.

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II.—Double Intradermal Tuberculin Test

The demonstrator (Mr. F. J. Daly) supplies the following notes:—

Equipment required.—Tuberculin, which must be concentrated; suitable syringe together with spare needles; scissors; sterilised water, methylated spirit or alcohol; suitable book to enter descriptions and measurements; calipers for measuring the thickness of the fold of skin; cotton wool (sterilised for preference) and a head lamp.

Tuberculins.—The following tuberculins are used: Old concentrated tuberculin; synthetic or precipitated composition.

Advantages of synthetic tuberculin are that it is easy to handle and that the nodules are not so large in negative reactions.

Dose of either is one-tenth c.c.

Syringe.—Any type of syringe which will measure one-tenth of a c.c. will suit. I find the dental type syringe with glass barrel and metal plunger the most suitable.

Advantages of this type of syringe are: it has finger grips and crutch, is all-metal, the dose can be measured, the tuberculin can be seen and air removed, a fine needle can be used. The long needle holder acts as a support for the fine needle. There is no danger of the needle coming off

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or of leakage. I find Solila needles most suitable ; they are fine bore and have brass ends which are easy to remove from holder.

A book should be used having sufficient space to enter a detailed description of the animal.

Sites.—Skin on almost any part of the body can be used. The most suitable sites are (1) the side of the neck about midway between the angle of the jaw and the point of the shoulder. (2) Caudal fold : the caudal fold site is that most used in America. It is a useful site in bulls, when the skin of the neck is very thick and lies in thick ridges. The right side of the neck is more convenient for a right-handed person. When animals are tied in permanently, as during the winter months, it is convenient to make the injection right and left sides into alternate animals.

Procedure.—Sterilise syringe and needles. Take a detailed description of the animal ; when numbered by tattoo take the number. Have the animal firmly held by the nose. Examine the site for roughness or thickenings such as remain after the subcutaneous injection of calcium solution or vaccine, or evidence indicating that the animal has been tested with tuberculin recently.

Clip hair closely at site of injection ; shaving is not necessary. Do not make the animal's neck unsightly by clipping hair off a large patch of skin.

Measure thickness of fold of skin and enter in record book. This measurement can be made at any time during the test. Take a fresh, clean piece of cotton wool and having poured some sterilised water or alcohol on it, wipe the skin over the site of injection.

Inject the tuberculin fairly deeply into the skin. Examine the site to see that the tuberculin has not been injected subcutaneously. If the injection is made properly an enlargement about the size of a grain of wheat should be felt in the skin. It is advisable to use a freshly sterilised needle frequently when testing a large number of animals.

In 48 hours' time take measurement of nodule or enlargement and give the second injection into the same place as the first injection, exercising the same precautions as to asepsis. The puncture of the needle into the skin should be as near as possible to the puncture made for the first injection ; 24 hours later, examine the site and measure the size of the nodule or enlargement. The time at which to make the final examination is 24 or 48 hours after the second injection. In some animals which show a negative reaction an oedematous enlargement of very considerable size may appear a short time after the injection is made. This usually disappears in 24 hours.

Interpretation.—This is the most difficult part of the test and requires considerable experience.

To put it shortly, a typical positive reaction is indicated by a hot, tender, diffuse, ill-defined oedematous swelling at the site of injection. This swelling is adherent to the underlying tissues.

A negative reaction is indicated by a small hard nodule about the size of the ordinary pea. It is not tender. Some workers hold that if the swelling is tender the animal is a positive reactor no matter how small the increase of measurement of the skin, and that if there is no real tenderness the reaction is negative no matter how large the swelling may be. Undoubtedly most positive reactors show tenderness, but a nervous negative reactor also shows tenderness especially if she has been tested several times. This is probably due in most cases to nervousness and fear that another injection is going to be made. Also some definite positive reactors show only slight tenderness or none at all. I depend mostly on the presence of oedema and diffuseness and the adherence of the swelling to the underlying tissues. The presence or absence of tenderness may help when one is in doubt. Measurements are not all-important in the interpretation of the test but must be taken for the purpose of recording the results of the tests.

It is the nature of the swelling rather than its size which indicates the reactor and non-reactor.

In the plaque type of positive reaction, the measurement may be only slightly increased at the final examination of the site, yet the reaction is definitely positive.

The advantages of the double intradermal test are as follows :—

1. It is simple and clean to carry out.
2. It does not disturb the routine of the farm or dairy.
3. The animals need not be kept indoors during the test as is the case when applying the subcutaneous test.
4. There is little or no effect on milk yield during the test.
5. It is a safe test for pregnant animals.
6. It can be applied to very young animals.
7. Animals cannot be doped by giving a previous injection of tuberculin as can be done in the case of the subcutaneous test.

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III.—The Johnin Test

Professor O'Dea mentioned that in view of the fact that purchasers from Argentina now required that all imported bulls should have a certificate of freedom from Johne's disease, the members should make themselves familiar with the double intradermal johnin test which is carried out in the same way as the double intradermal tuberculin test, with the addition that each time johnin is injected, a similar dose of a control fluid is inoculated into the skin of the opposite side of the neck—the neck being the site usually

selected. It is essential that a separate syringe and needle be used for the two fluids. The result is determined by comparison of the two sides after the 72nd hour.

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IV.—Passing the Stomach Tube in the Horse

Mr. Martin J. Byrne, in demonstrating the above, said that the stomach tube was a very useful article in veterinary practice and it should be used more frequently by practitioners. It was particularly useful for the administration of liquid foods to animals which were unable or did not wish to feed ; also for the administration of colic and worm medicine.

A standard tube, size 17, had been found to give general satisfaction. In this tube, there was one outlet in the wall of the tube in close proximity to the extremity. This claimed the advantage of maintaining constant rigidity throughout the length of the tube, thus giving no cause for the tube to bend, when being passed. There was a mark on the tube at a distance from the outlet extremity equal to that between the nostril and the entrance to the oesophagus. in an average-sized horse. The liquid was introduced through a funnel inserted into the "inlet" extremity. The tube should always be kept perfectly clean and before use extra care should be taken to see that its outer surface was quite smooth and free from hard particles such as grit, etc. Liquid paraffin was a very suitable lubricant for the outer surface of the tube.

He found it most convenient to have the horse backed into a stall or corner of a box and to pass the tube through the off nostril, standing at the off side of the horse. In this position he placed his left hand gently on the horse's nose, having the thumb in the off nostril to keep the tube on the floor of the nostril and so avoid entering the false nostril. His left hand also steadied and controlled the horse's head to some extent. He held the tube about 6 inches from from its "inlet" extremity with his right hand and an assistant held it at the other extremity. The man holding the horse also stood at the off side close to the horse and behind the operator. An ordinary snaffle bridle afforded sufficient restraint. The tube should be passed very gently until the posterior portion of the pharynx was reached, when the animal would be seen to make swallowing movements ; then, by manoeuvring the tube synchronously with a swallowing movement the oesophagus would easily be entered. The tube was then pushed down to the required distance, and by drawing the animal's head towards the off side could be seen passing down the oesophagus.

It could also be felt in the oesophagus just above and behind the larynx ; this, however, was not always possible, especially in horses with thick necks. By listening at the free extremity of the tube, gurgling sounds could be heard if the tube was in the oesophagus, whereas on the other hand, if it were in the trachea, blowing sounds would come through synchronising with the respirations. In this latter instance also, the tube could be made to rattle against the rings of the trachea by shaking the latter. He always preferred to see the tube pass down the neck or feel it in the oesophagus before attempting to administer the drench. Another clue to the position of the tube was the resistance encountered to its passage when the region of the pharynx was passed. Coughing was not a definite indication that the tube was in the trachea, neither was its absence any assurance of the contrary. Sometimes when the tube was in the oesophagus the animal might be seen to make retching movements with its neck. There was a slight bend near the "inlet" extremity of the tube and when the latter was being passed the concavity of this bend should be kept towards the floor of the nostril. Before withdrawing the tube after administering the drench it was advisable to disconnect the funnel and to blow into the lumen of the tube so as to force all the liquid through. The tube should be withdrawn slowly.

If it was found impossible to pass the tube through the off nostril the near one should be tried. The tube should not be forced under any circumstances if haemorrhage was to be avoided.

Whilst Mr. Byrne was giving these useful hints to his audience he was, at the same time, passing the stomach tube in a gelding 16 hands high. He then passed the same tube in a small pony 12 hands 2 inches high. In neither case was there the slightest hitch in the process. Mr. Byrne was warmly congratulated by the members present.

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V.—Nerve Blocking of the Limbs in the Horse

Professor T. G. Browne demonstrated dissections of the limbs of the horse and indicated the anatomical relationships of the structures at the sites for nerve-blocking. He emphasised the points to be observed in avoiding a faulty injection and explained that failure of the action of the anaesthetic was often due to the anaesthetic not coming into contact with the nerve—as in the cases of the posterior tibial nerve and the higher site of the anterior tibial, where the nerve was beneath the deep fascia and the anaesthetic was injected only subcutaneously and not through the fascia. Also in the case of the plantar nerves failure might be due to the injection having been made into the great sesamoid sheath or even into a vein.

Professor O'Connor remarked that there was little for him to say after Professor Browne's

demonstration of the position of the nerves of the limbs and the sites for blocking them, on the dead subject. He showed the sites in the live horse for blocking the plantar, median, ulnar, posterior and anterior tibial nerves. He always had the foot lifted and the knee flexed when making the injection over the plantar nerves in the fore limb, and directed the needle towards the proximal extremity of the limb, so that if the horse snatched the limb forward the needle would not penetrate too deeply and perhaps get broken in the tissues.

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VI.—Tuberculin Testing of Pigs

Professor O'Dea gave a demonstration on the application of the intradermal tuberculin test in pigs and pointed out the sites usually selected for inoculation, namely, the middle of the upper surface of the ear, the skin at the base of the pinna, or the edge—preferably the inner edge—of the external ear. Of the three sites he considered the last-mentioned the least suitable.

The sites, having been cleansed with methylated spirit, 0·15 c.c. was injected into the site chosen, human or bovine tuberculin being used on one side and avian on the other. The result was noted in 48 to 72 hours. In non-reacting animals one frequently had a little difficulty in ascertaining the site of puncture, whereas in reacting animals the needle puncture was conspicuous and was surrounded by a red zone three-quarters to one inch or more in diameter, this area being infiltrated and slightly thickened. Some observers had recorded slight necrosis even in non-reacting animals, but he had not experienced this. Avian tuberculin was used because it was found that pigs affected with organisms of the avian type might not react to tuberculin of human or bovine origin.

Control of the pig during inoculation sometimes gave rise to a little difficulty. Young animals could be held by an assistant, but store pigs, sows, and boars were not so easily handled. Coaxing and scratching was sometimes sufficient to attract the animal's attention and should this fail a twitch around the upper jaw would be found to be effective.

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VII.—Operation for Vaginal Wind-sucking in a Mare.—[The description of this demonstration supplied by the operator, Professor O'Connor, is transferred to the Clinical Section of this issue.—*Editor.*]

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After the demonstrations, tea was served in the Board Room.

Business Meeting, with Paper

The members re-assembled at 7 p.m. in the large lecture theatre for the second part of the proceedings, which was as follows :—

The minutes of the Annual General Meeting were read, confirmed and signed.

Correspondence.—A letter was read from Dr. Bullock expressing sincere thanks for the very generous gift of £163, which was sent to the Victoria Veterinary Benevolent Fund.

A very hearty vote of thanks to Messrs. F. O'Leary and J. M. Murphy for their work in connection with the raising of this amount was passed unanimously.

Report of Council.—The Hon. Secretary read a short report of the proceedings of the two Council meetings which had been held since the last General meeting, the first on Friday, March 4th, and the second on Friday, April 22nd.

Arising out of the report of the Council meeting on March 4th, it was decided that this General meeting adopt the recommendation of Council that the number of Vice-Presidents of the Association be reduced from two to one, who shall be regarded as the President-Elect, and that this recommendation go forward to the next Annual General meeting.

Paper.—A paper on "Anaesthesia in Veterinary Practice," was read by Mr. Martin J. Byrne, M.R.C.V.S., Veterinary College. The paper was a masterly production and one which might be carefully preserved by all practitioners for reference.

The discussion was ably opened by Professor J. J. O'Connor, and several members present also contributed to the discussion. Mr. Byrne suitably replied.

[Mr. Byrne's paper is reproduced, together with a report of the ensuing discussion and of the essayist's reply, at the commencement of this issue.—*Editor.*]

Arrangements for Visit to Belfast.—The Hon. Secretary reported that he had a latter from Mr. P. L. Shanks, Hon. Secretary, North of Ireland Veterinary Medical Association, stating that they were reluctantly compelled to postpone the meeting at Belfast which had been fixed for Wednesday, May 25th, 1938. The Hon. Secretary stated that he was endeavouring to have Saturday, June 4th, fixed as the date of the meeting.

It was decided that provisional arrangements be made to travel by bus and return same night.

New Members.—The following new members were unanimously elected : Mr. William Allen Smith, Oaklands, Boyle, Co. Roscommon (proposed by Mr. Little and seconded by Mr. Dolan) ; Mr. Louis F. Doyle, St. Finbarrs, Sunbury Gardens, Dartrey Road, Dublin (proposed by Mr. A. A. Donnelly and seconded by Professor O'Connor).

A vote of thanks to all the demonstrators and to the reader of the paper was proposed by Mr. A. A. Donnelly, seconded by Mr. P. F. Dolan and passed unanimously.

J. M. Murphy, *Hon. Secretary.*

Central Veterinary Society

Sixty-Fifth Annual Dinner

R.C.V.S. President on the Loveday Report

Dr. J. T. Edwards Receives the "Victory" Medal

The President of the Central Veterinary Society, Mr. Nevill S. King, was well supported by his fellow members and their ladies at the sixty-fifth Annual Dinner, which was held at the May Fair Hotel, W.1, on November 3rd, 1938, when the Society also had the privilege and pleasure of welcoming Sir John M'Fadyean, Mr. G. H. Livesey, the President of the Royal College, and Major Brennan DeVine, President of the N.V.M.A. A considerable increase in numbers delighted the officers of the Society, and the reception by Mr. and Mrs. King was the social prelude to an evening which throughout proved exceptionally interesting and enjoyable.

After an excellent dinner, and following the honouring of the loyal toasts, the company listened appreciatively to the admirable post-prandial speeches, the President of the Royal College taking advantage of this—his first—opportunity to enlighten the Society—and the profession—on the attitude adopted by the Council of the Governing Body towards certain of the proposals contained in the recently issued Report of the Committee on Veterinary Education in the British Isles.

"THE CENTRAL VETERINARY SOCIETY"

Mr. Geoffrey H. Livesey, President of the Royal College of Veterinary Surgeons, said that they had paid a very high compliment to their governing body by inviting its President to propose the toast of the Society—the toast of the evening—and he was sure that the Council of the College appreciated that compliment very much.

There had been a close link between the Royal College and the Central Veterinary Society for many years. Both the College and the Society had their roots in the same ground, tended by the same men, and while the College received its charter in 1844 and they did not become recognised as the Central Veterinary Society until 1870, yet long before that there had been societies which were the beginning of that Society as it now stood. Those men did excellent work. For a long time, as they knew, there was an even stronger link—in the minds of many of them—between the College and the Society in the fact that 10, Red Lion Square was the home of the Central for so many years, and it was a matter of great regret, he knew, to many of them when the necessity arose for them to transfer their home to other premises. They on the Council of the Royal College were reminded every time they went into their council room of the Association between the Society and the Council, by those lovely stained-glass windows there, and they were reminded when they went into the Library, of the good the Society had done in subscribing so munificently to the endowment fund of the Central Library for Animal Diseases. When one went into that room one's mind naturally was carried back to the days when the Central Veterinary Society used to meet there. Younger members of the "Central" could not appreciate what the Society was like in those days, what it did, or the character of its meetings. They used to sit round a long table, very happily, and it required a little temerity on the part of a young graduate to stand up and air his views: he generally got something that he did not expect in return. (Laughter.) He had to face men like Hunting and Macqueen and he was a brave man, having once experienced the sarcasm of Professor Macqueen's tongue, who ventured to make another remark. (Laughter.) A great contrast there was now, with those days. Unfortunately he was not now able to attend the meetings of the Central Veterinary Society as he used to do—for years he never "missed a sitting"—but on the few occasions he had been recently he had been struck with the change there had come over the Society. In the old days they had Hunting, Macqueen, George Upton—and Henry Gray and Perryman—happily still with them—and many others, and they used to have great fun; each really was a most entertaining evening. Perhaps they did not use such long scientific words, but they had good fun out of it. Modern meetings seemed so ultra-scientific and were he to attend them he would certainly have to learn a new vocabulary before he took part. (Laughter.)

Another change he noticed was that the meetings of the Council used to be, not debates or discussions, but, he thought, rather almost a free fight, but they made very entertaining reading; whereas nowadays the proceedings of the Council were reported in such a dry fashion and so shortly that they were, by comparison, dull indeed. The reports of meetings of the Central Veterinary Society, on the other hand, which came out month by month, were always pleasant to read because there was a touch of humanity about them. The published reports of the Council's proceedings gave no indication of the immense amount of work that was done and was being done continually.

The Veterinary Education Committee's Report

Continuing, Mr. Livesey said that it would be some time before they had another quarterly meeting of Council and a week before that,

perhaps, they would receive the report in their weekly paper of what had happened last October.* He proposed, therefore, to give them a brief account of the latest proceedings of Council.

Only the previous day a meeting was specially called to discuss a matter of the utmost importance to veterinary surgery and the veterinary profession. For some time now the Council had had under very careful review the Loveday Report on Veterinary Education in Great Britain. The Report dealt with matters of such importance to the veterinary profession and it was likely that so many opinions would be expressed on what the Report recommended, that it seemed expedient to the Council to call a special meeting in order to express clearly its views on the major points raised in the Report, so that the profession should know what was in the mind of its governing body.

The meeting to which he referred decided on some resolutions which defined the Council's policy towards the Report. He was not going to weary them with the cut-and-dried resolutions, but he would tell them their purport.

The Council disagreed emphatically with the first conclusion in the Report, that was, that the constitution of the Council of the Royal College be changed by the introduction upon that body of representatives of outside bodies—universities—who had not gone to the ballot of the profession. The Report recommended that representatives of the five universities and the affiliated schools be nominated—*i.e.*, appointed without a vote as provided in our charter—to serve upon the Council of the Royal College of Veterinary Surgeons and its Examination Committee. There might be some excuse for such a recommendation under certain circumstances, but in the view of the College those circumstances had not arisen. The Committee seemed to have overlooked the fact that the Council of the College had other duties than the mere examination of students. They had such matters to deal with as registration, the removal of Members' names from the Register, the restoration of men on the Register; the dealing with matters of unprofessional conduct and with those people or bodies who attempted to encroach upon their professional rights, and also matters of finance and property, and they held that the veterinary profession must be master in its own house and that they would not tolerate interference from outside bodies—laymen—in dealing with their own affairs. (Hear, hear.)

The Council also expressed strong disapproval of the recommendation that the four universities (concerned with the suggestion) should be given power to grant degrees after three years of the veterinary course of five years and before the diploma of membership was granted. At the present time, as they knew, a degree in veterinary science was granted by three universities on completion of a five-years' veterinary course and a further term—and only to those who held the diploma of the Royal College. To break into the veterinary course of five-and-a-half years and give a degree in science—however loosely it might be associated with veterinary science—at the end of three years, and then go on in the hope that the graduate would continue for two further years to take the diploma in order to practise, was a revolutionary change and one to which they could hardly be expected to agree. And it was not only that: so far as he had been able to ascertain, it was unknown in any other profession in this country, in any other country—on the Continent, in America or, in fact, the world over. If aspirants to the profession could obtain a degree in veterinary science whilst they were still practically veterinary students, he should say that any such award would be simply a degradation of a university degree. (Hear, hear.)

In the recommendations the Committee made with regard to the schools, he should like to express the hope that no recommendation they had made should in any way interfere with the good relations which had existed for fifty years between the governing body and the schools. There were certain recommendations in the Report which, to his mind, were fraught with great danger, and they did not want those good relations spoilt in any way. (Applause.)

Let him now, on the other hand, draw their attention to an excellent and most welcome recommendation in that Report. For years past the Royal College—the profession—had been in very grave danger; there had been many forces at work to disrupt them by taking away from them their single portal of entry. He could only feel the very greatest gratification and satisfaction that the Report so thoroughly endorsed the contention of the College that they put before the Committee that for a small profession like the veterinary, the one portal system was pre-eminently the best. (Hear, hear.) And might he there pay a tribute where tribute was due. That contention had been fortified by the skill and the knowledge and the wisdom which they had had at their disposal and which had been so ungrudgingly given in that fight for the one portal system by their Registrar, Dr. Bullock. (Applause.)

There was one other point in the Report which he thought they would all welcome and that was the recommendation that the Government should make an early enquiry into

*Reports of proceedings of Council, R.C.V.S., are published with a minimum of delay after their receipt at the editorial office.—*Editor.*

government legislation to control unqualified practice. (Hear, hear.)

The King Family

That, proceeded Mr. Livesey, was sufficient about legislation on a festive night like that. Let him turn now and congratulate their President: he did congratulate Mr. Nevill King most heartily on holding that most important office, the presidentship of the Metropolitan Society of the country. (Applause.) It was not long since a brother "King" reigned over them and it was not often that two brothers occupied the presidential chair of a professional society; therefore he thought their President ought indeed to be congratulated. He felt that they were all grateful to him and his family for the great interest they had always taken in the profession and in that Society, and might he too—if he was not going outside his province—convey to Mr. King's mother, through him, their extreme pleasure at seeing her there and thank her for the immense amount of work that she had done on behalf of the profession. (Applause.) He could scarcely imagine a veterinary congress where Mrs. Herbert King and her sister, Mrs. George Wooldridge were not present, and he thought, as they all did, that she was to be congratulated in that she had been able to put two sons in the Chair of the Central Veterinary Society. (Loud applause.)

The President's Reply

The President, Mr. Nevill S. King, making response, thanked Mr. Livesey for the way in which he had proposed the toast of the Central Veterinary Society and, if he might say so, for the remarks he had so kindly made about his family and himself.

It was a great honour to respond to the toast of such a society as the "Central" and one which had associations with so many eminent veterinarians. He felt that he could not adequately reply to the remarks so eloquently made by Mr. Livesey. It had been said that love, knavery and necessity make men good orators: here was the necessity, but he did not feel like a good orator—he felt rather like that curious little figure in "Snow White and the Seven Dwarfs" who was always being left behind; his name was "Dopey" and it was said of him that he had never spoken because he had never tried to. (Laughter.)

The Central Veterinary Society, as Mr. Livesey had said, was founded in 1870, *i.e.*, 81 years after the Veterinary College was founded at Camden Town. It was interesting to note the changes that had taken place in veterinary education since that time. In 1791 there were 14 students at the College and the course was one of two years; to-day there were between 350 and 360 students and, as they knew, the course had been extended to one of five years. The students of those days did not have anything like the freedom that they now enjoyed; they had no vacations, they lived in the College and they had to be back in College by 8 o'clock at night. (Laughter.)

In talking of veterinary education he felt that perhaps a very brief further reference to the Loveday Report might not be out of place. He was glad to hear the opinions of the Royal College of Veterinary Surgeons on that subject. (Hear, hear.) The point that struck him most forcibly was that the one portal system of entry into the veterinary profession should remain, and he was very pleased to read that. (Applause.) One might have expected the increase in the number of students that had passed through the various colleges in recent years to have produced an overcrowded profession; that, however, did not appear to be the case at the moment, but he was pleased to see also in the Report that it was suggested that the number of students should be limited. At no time in the history of the profession had the care of animals been so marked or so necessary as it was now, and more and more was expected of the veterinary surgeon. Though some practices had undoubtedly suffered from the disappearance of horse transport, the small-animal population had increased and that perhaps averaged things out a little. There was a tendency for breeders of animals —both utility ones and domestic pets—to improve their stock. Science in feeding and science in breeding was improving their pedigree stock, and one could not help being struck by the demand that there was from abroad for our pedigree stock of all kinds.

One must not forget that research had played a most important part in the advance of the veterinary profession and of agriculture, and their thanks were due to those who, some of them in obscurity, had worked in this department. Co-operation between laboratory and field was, he thought, essential to their progress.

Nor had the status of the profession been neglected, and in this respect he was glad to read that recently the veterinary profession had been added to those professional associations which were allowed to counter-sign the form for applicants for passports: one was very pleased to see that sign of recognition of the profession. (Hear, hear.)

Continuing, the President said that it was his exceedingly pleasant duty to welcome their guests that night. Amongst those who had favoured them with their presence was Mr. Livesey, the President of the Royal College of Veterinary Surgeons, and Major DeVine, the

President of the "National." (Applause.) Another whom they also welcomed very much and were most glad to see back with them once again, was Sir John M'Fadyean. (Loud applause.) Time unfortunately would not allow him to mention individually others amongst their distinguished guests, but they did extend to all a very sincere welcome, and he could not refrain from quoting the words of Shakespeare:—

"Sirs, you are very welcome to our house:
"It must appear in other ways than words,
"Therefore, I scant this breathing courtesy."

The President, on resuming his seat, was warmly applauded for his response to the toast.

PRESENTATION OF THE "VICTORY" MEDAL

Following a brief musical interlude, the President rose to say that he now had a very pleasant duty to perform, and that was the presentation of the "Victory" medal. The "Victory" medal was struck to commemorate the victory of the Allies in the Great War and was awarded to a member of the profession who had done good work for its advancement.

This year the medal had been awarded to Dr. J. T. Edwards. (Loud applause.) He knew of no one more fitting for that award than Dr. Edwards. (Hear, hear.) Those of them who were lucky enough to be students under him would remember with what enthusiasm and with what hard work he carried out his duties—and, he might incidentally say, made them carry out theirs, too. (Laughter.)

His work in India and, since his return, his work in research, in the literary world and also on committees, had been carried out with that zeal and enthusiasm that was so characteristic of him. It gave him very great pleasure, therefore, to request Dr. Edwards to come forward to receive the "Victory" medal at his hands. (Applause.)

[Dr. Edwards was loudly acclaimed as he advanced and was handed the "Victory" medal by the President.]

Dr. J. T. Edwards, in his speech of acknowledgment, said that if we searched our hearts we would find that most of the rewards and honours in life came to us, as it were, as "answers to prayers." He would need to explain that statement. He had been warned not to speak to them for too long, so as not to detain them from the convivial intercourse that was to follow, but he must begin by saying that the first intimation he received of that award was from a contemporary of their President, their late President, Dr. McCunn. Partly through circumstance and partly from disinclination, he had not, in the course of his time, published a great deal of his work, and this reward was unexpected and came as an agreeable surprise. He remembered Dr. McCunn very well as his student during the short time he had the privilege of teaching at the Royal Veterinary College: he was an unassuming, responsive and grateful student (laughter), so that he could not help but feel that what had come to him (the speaker) was not so much a reward for high achievement, but a measure of the depth of Professor McCunn's affections for his teachers: he (Professor McCunn) must have become in turn the ideal professor to his own students. (Laughter.)

Another reason that prompted his gratitude was that, through mischance, he found that he did not happen to be a Fellow of that Society, so that he was the first, it seemed, to be awarded that prize after it had been made "open to all comers."

He must confess that what the President had said about him had given him real pleasure. The President had referred, among other things, to such literary efforts as he had been privileged to undertake on behalf of his profession. That had touched him (the speaker) very deeply, because it had often seemed to him, in moments of despondency, that his career had been a long and vain struggle for self-expression. And yet somehow or other, on very critical occasions he had been invited to give published expression to the aspirations of the corporate body of the profession. They had heard a great deal earlier that evening about the dangers that threatened the corporate body, from the President of the R.C.V.S. He (the latter) had entertained them, rather unexpectedly, with information which was weighty and which perhaps in the hearts of some of them, might create alarm. He (Dr. Edwards) himself felt no alarm. In that company there was awakened in his mind a vivid train of thought. His first recollection of their Society went back to somewhere about the year 1911, when he was invited to one of their meetings. The late William Hunting was in the chair. He got up and gave an impromptu address on the subject of spavin—one of his favourite subjects—and he ended his remarks by saying, "I expect all I have said will be torn to shreds by Professor Macqueen." After a number of people had got up—to beat time, as it were—Professor Macqueen rose and actually did tear to shreds everything that Hunting had said, to the great amusement and edification of everyone present. Some years later, in India, he (the speaker) was shown a case of spavin by one of their Fellows, Major Grahame Williamson, and he could not help saying to him, "I wonder if the equine species will become extinct before we know anything about spavin." Then, only last, year, Major Williamson, who was then Editor of the *Journal of the*

Royal Army Veterinary Corps, approached him to contribute something to his journal and he found that, bearing upon an aspect of certain researches he had been pursuing for some years, it was upon the knowledge that had accumulated tending to throw light upon the common unsoundnesses of horses that he could most profitably write a review. This knowledge tended to show that his colleague of the War, William Mitchell, of Edinburgh, was very probably on the right lines, and all those older men like Hunting and Macqueen whom they had held in awe and admiration were "all at sea." (Laughter.)

This train of thought, like many others of the kind, awakened in his mind several comforting recollections and re-assurances. First of all, there was this to be derived from such reflections: in spite of the fact that when he went to college their profession was proclaimed by many to be doomed because the horse, the main object of practice, seemed about to disappear, the profession was now more alive in many ways than ever. The field of their activities was ever widening, and becoming ever more diversified, and for its proper exploitation was ever calling for readjustment in their outlook and ideas. This alluring task of adapting themselves to the changing problems which confronted them was one of life's chiefest pleasures: indeed it had given him all the pleasure he needed.

The next thing that occurred to him was this: that while undertaking the work which in itself had given him ample pleasure and recompense he had met men—men in the days of his introduction to the life of the profession whom he could now look back upon, like Hunting and Macqueen, with abiding respect and admiration, and many younger men in whose company, more so than in any other company, he had found, at any rate, he was least likely to be misunderstood. When now he had this reward as the token he took it to be of the good wishes and good opinion of these men, who ought to know him best, he felt he had earned the reward which of all others he had most coveted. (Applause.) It made him feel keenly he ought to strive anew to continue the noble tradition to the service of their common ideals which had been handed down to them by their forerunners. (Applause.)

Their Society, they had been reminded, was founded 68 years ago. It was not the first Society of veterinary practitioners in London. The first Society was founded in 1828, at the Royal Veterinary College in London. But after some years, as a practitioners' society it failed—and it failed for a reason. A little while ago he had had occasion to prepare an historical article for their weekly journal and in the course of his readings the reason for the failure became plain to see. The first Society prospered while it adhered to certain principles, and it was doomed as soon as it departed from those principles. The moving spirit in founding that Society was a man, William Youatt, whose name, it had been well said, deserved to be written in letters of gold upon the tablets of their profession. Youatt hailed with delight in a leading article in the first volume of *The Veterinarian* the founding of the first Society. He (the speaker) hoped they would bear with him while he read to them what Youatt said, because he did not think they need have any apprehension about their standing or their future, as long as they adhered to the precepts contained in his words. William Youatt said:—

> "Veterinary science [mark, at that early stage in our history he calls our vocation a 'science'] is yet in its infancy. . . .
>
> "Veterinary practitioners should be brought more together. In the present state of our art, doubtful of the soundness of some of our principles, and feeling, if we would honestly confess the truth, that many important points of practice are yet enveloped in mystery, we carry a bold face to the world, but we are afraid and jealous of each other, and our professional intercourse is occasionally characterised by a reserve, and selfishness, and illiberality, perhaps something even worse than these, and which reflect on us no credit.
>
> "When we have been accustomed to meet together, and to unite in the work of mutual improvement, we shall have a more kindly feeling towards each other, and be compelled, as well as disposed to act with candour and with honour.
>
> "We shall likewise measure each other's strength. We shall find out of what our profession is composed. We shall discover the peculiarities of each other's tact and skill. We shall know where to have recourse in cases of perplexity; and we shall know where to look for the competent instructor, when advanced age or premature death may have taken from us the present heads of our profession. Some of us, perhaps, may have been undervalued, unknown. Others may have held their heads a vast deal too high. A society like this will place each man on his proper level, and the art and the public will reap the benefit. . . .
>
> "We do hope that, at no distant period, the veterinary society will rank among its members every zealous and scientific practitioner. If the love of truth, and the determination to vindicate the dignity of the veterinary profession, uncontaminated by any sinister purpose or party feeling, influence and govern the proceedings and discussions of the society, we are assured

that the 'advancement of veterinary science will be essentially and rapidly promoted.' . . ."

Those words were written 110 years ago. They had been warned, that evening, of certain dangers that might be facing them. He thought that if they adhered to those precepts which had guided their early predecessors, and which had animated the present Society to its lasting honour since its re-establishment in 1870, they stood in no danger whatsoever. The precepts were those of giving whatever there was that stood in need of criticism a fair hearing, and fair-play. And so in conformity with their own best traditions they would see to it, he felt sure, that they looked first to discover the excellencies in the Report of the Committee on Veterinary Education in Great Britain. (Hear, hear.) The people who drafted the Report they must look upon at once too as well-intentioned and honest men. (Applause.) They had stated, to their credit, let it be freely admitted by everyone, certain great truths. One was that they, the members of the veterinary profession, were the physicians of the farm and guarantors of the nation's food supply. They had said, again, with great force, that veterinary education in this country had been starved of public support. Further, they had said that the only people who were fitted to enter the profession were those who were imbued with a genuine love of animals. For these and many other things they at least deserved our generous thanks. (Hear, hear.) In this spirit they could proceed to examine critically the recommendations made in the Report to extract from them what was to their own and the public advantage.

Then, bearing steadfastly in mind for their guidance the principles that had been wisely laid down by the devoted men who had founded those institutions which formed the supporting fabric of the body corporate they, the men of a younger generation—said Dr. Edwards in conclusion—would assuredly dedicate themselves to perpetuate the noble traditions handed down to them. In so doing, they would see to it, to borrow the words of Abraham Lincoln, that " with charity towards all, with malice towards none," government of the profession, by the profession, for the profession shall not perish from the earth. (Loud applause.)

The toast list had been interspersed with charming songs, delightfully rendered by Miss Anne Ziegler (soprano) and Mr. Webster Booth (tenor), and at its conclusion the company enjoyed an admirable cabaret show, in which these artistes were joined by Giovanni, the always-acceptable illusionist and Mr. Howard Spencer, the equally bewildering conjuring expert, whose impressive lecture in synchronous explanation of his exploits left everyone, as it was meant to do, more thoroughly in the dark than before.

Despite the ample opportunities provided for dancing to the music of Jack Anderson and his band, the more insatiable devotees, at the end of the evening, proceeded to the May Fair Restaurant, where the dancing continued to a late hour.

IN PARLIAMENT

Milk Bill Presented

In the House of Commons on Thursday of last week Mr. W. S. Morrison, Minister of Agriculture, presented the Milk Industry Bill—"a Bill to make provision for the better organisation of the milk industry and industries connected therewith, for making certain payments out of the Exchequer for the benefit of the milk industry, and for regulating the importation of milk and certain other products; to amend the law relating to the sale of milk and cream and the use of special designations in relation to milk; to amend and extend section 20 of the Agriculture Act, 1937."

. . . . .

Among the questions and answers recorded in the House of Commons recently are the following:—

Undesignated Milk

Mr. David Adams asked the Minister of Health whether it is his intention to raise the standard of undesignated milk in the matter of bacteria content to that of milk supplied under the Milk (Special Designations) Order, 1936, namely, tuberculin tested, certified, tuberculin tested, accredited, pasteurized, and thus remove a potent source of human disease in milk supplied by the Milk Marketing Board?

Mr. Elliot: I would refer the hon. Member to the Government's proposals for promoting the cleanliness and safety of the milk supply incorporated in the Milk Industry Bill introduced yesterday.

Mr. Adams: Do I understand that the Minister is aware of the very high bacteria content of undesignated milk which has been supplied to the public?

Mr. Elliot: I think all these questions had better be discussed during the consideration of the Bill.

. . . . .

Livestock Industry (Slaughterhouses)

Sir R. Glyn asked the Minister of Agriculture whether he is in a position to make any statement on the recommendations of the Royal Commission for the Report on Central Abattoirs; how far he is satisfied that there are adequate cold-storage facilities available throughout the country to receive home-grown carcases, thus providing equal opportunities for the sale of home and overseas meat; and whether, in connection with the policy recommended of the provision of central abattoirs, he will consider the establishment of cold-storage facilities on such sites?

Mr. W. S. Morrison: Part V of the Livestock Industry Act, 1937, provides for the establishment of three experimental central slaughterhouses, and the results shown by these will afford valuable guidance for the consideration in due course of future policy regarding the

slaughtering of livestock. The Livestock Commission are at present considering a number of proposals which have been made to them by local authorities and other bodies for the establishment of the three central slaughterhouses in question.

With respect to the question of cold storage, the Commission regard the provision of adequate mechanical cooling facilities at a central slaughterhouse as an essential feature for the purpose of conditioning the meat, but I understand that whilst these coolers could be used for storage for a limited period, the keeping of home-produced meat in cold store at a temperature below freezing point would have a detrimental effect on the prices obtained by the British farmer.

. . . . .

Protection of Animals

Mr. W. R. Duckworth asked the Home Secretary whether he will consider introducing legislation to prohibit the attaching of dogs to fast-moving vehicles, in view of the suffering often thereby caused?

Sir S. Hoare: I am advised that the existing law in the Protection of Animals Act, 1911, would cover any such practice as that referred to by my hon. Friend if it involves suffering to the animal.

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Tuberculosis (Statistics)

Sir A. Wilson asked the Minister of Health whether he can state the number of new cases and deaths from pulmonary and non-pulmonary tuberculosis, respectively, for the past five years; the respective notification and death rates per million; and the percentage of new cases of tuberculosis which came to knowledge otherwise than by formal notification for each year, showing, separately, posthumous notifications?

Mr. Elliot: The desired information is as follows:—

I.—New cases of Tuberculosis in England and Wales recorded by District Medical Officers of Health.

Year.	Total New Cases.			Rate per million population.		
	Pulmonary.	Non-pulmonary.	Total.	Pulmonary.	Non-pulmonary.	Total.
1933	49,958	16,393	66,351	1,238	406	1,644
1934	48,208	16,022	64,230	1,191	396	1,587
1935	45,015	14,608	59,623	1,107	359	1,466
1936	44,815	14,454	59,269	1,097	354	1,451
1937	44,996	14,922	59,918	1,096	364	1,460

II.—Mortality from Tuberculosis in England and Wales.

Year.	Deaths.			Rate per million population.		
	Pulmonary.	Non-pulmonary.	Total.	Pulmonary.	Non-pulmonary.	Total.
1933	27,854	5,405	33,259	690	134	824
1934	25,682	5,200	30,882	635	128	763
1935	24,603	4,598	29,201	605	113	718
1936	23,801	4,467	28,268	583	109	692
1937	23,970	4,559	28,529	584	111	695

III.—New cases of Tuberculosis coming to knowledge otherwise than by formal notification (included in Table I).

Year.	(*a*) All Sources.				(*b*) After Death (included in (*a*)).							
					(1) Total "after Death."				(2) Posthumous Notifications (included in (1)).			
	Pulm.	Non-pulmonary.	Total.	Percentage of Total New Cases (Table I).	Pulm.	Non-pulmonary.	Total.	Percentage of Total New Cases (Table I).	Pulm.	Non-pulmonary.	Total.	Percentage of Total New Cases (Table I).
1933	5,476	2,298	7,774	11·7	2,727	1,610	4,337	6·5	365	283	648	0·98
1934	5,174	2,328	7,502	11·7	2,324	2,044	4,368	6·8	335	316	651	1·0
1935	5,380	2,173	7,553	12·8	2,201	1,371	3,572	6·0	344	279	623	1·0
1936	5,479	2,186	7,665	12·9	2,308	1,364	3,672	6·2	337	293	630	1·1
1937	5,366	2,261	7,627	12·7	2,103	1,427	3,530	5·9	340	286	626	1·0

Horses (Supply)

Mr. De la Bere asked the Minister of Agriculture what steps he is taking to maintain the horse population throughout the country, since an adequate supply of horses is important in times of emergency?

The Minister of Agriculture (Mr. W. S. Morrison): Financial assistance is given by the Ministry to heavy horse societies. I have no reason to suppose that a sufficient supply of horses is not being maintained for the purposes of the agricultural industry.

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Horses (Docking)

Mr. R. Gibson asked the Secretary of State for War what proportion of the horses owned by the War Department are docked or nicked; what proportion of these were docked or nicked after being acquired by the War Department; and whether he has any statement to make as to the policy of his Department towards such docking or nicking?

Sir V. Warrender: Except in the very rare cases in which docking is a surgical necessity owing to injury in the tail, the docking or nicking of Army horses is not permitted; nor are docked or nicked horses purchased for the Army.

Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Dec. 1st.—Meeting of the Central Division, N.V.M.A., at the Royal Veterinary College and Hospital, 6.30 p.m.

Dec. 5th.—Meeting of the Editorial Committee, N.V.M.A., at 36, Gordon Square, W.C.1, 4 p.m.

Dec. 8th.—V.V.B.F. (Ladies' Guild) Dance, Princes' Galleries, Piccadilly, W.1.

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PERSONAL

Illness of Mr. Henry Gray.—His fellow members of the profession will be deeply concerned to learn that Mr. Henry Gray, M.R.C.V.S., of Kensington, is lying ill in St. Mary Abbot's Hospital, Marloes Road, W.8. Early in September Mr. Gray's health necessitated his removal to the West London Hospital, where such a pronounced improvement took place that he was allowed to return home. Unfortunately, but as will readily be understood, our friend did not take very literally the medical injunction to restrict his activities, and recently a relapse occurred. Mr. Gray is, however, we are glad to say, allowed to receive visitors.

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Veterinarian Injured in Motor Accident.—We regret to learn that Mr. Campbell Dickson, M.R.C.V.S., of 17, Baronscourt Terrace, Edinburgh, 8, sustained serious spinal injuries as the result of his car being involved in a motor accident near Glasgow recently, when the vehicle overturned on him before being completely wrecked. His three passengers had miraculous escapes, but Mr. Dickson was, as stated, badly hurt, though he "hopes to be allowed on his feet about Christmastime."

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R.C.V.S. OBITUARY

Death of Mr. F. T. Harvey, of St. Columb

Harvey, Frederick Thomas, "Penmellyn," St. Columb, Cornwall. Graduated London, January 14th, 1885. Died November 22nd, 1938.

It is with the deepest regret that we announce the death of Mr. Fred T. Harvey, F.R.C.V.S., of St. Columb, Cornwall—the well-known general practitioner who, as was said of him when he received the Dalrymple Champneys Cup at last year's Congress of the N.V.M.A., "embodied all the qualities and abilities which go to make up the sound professional worker," and who spent the whole of his long life in country practice. Mr. Harvey, who made many valuable contributions to clinical medicine and surgery—at "National" conferences, in the columns of this journal, and elsewhere—was for many years an Examiner in Medicine for the Royal College of Veterinary Surgeons.

Notification of Mr. Harvey's death has just reached us, and a full biography will be published in our next issue.

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Gazi, Victor Raphaël, Society for Prevention of Cruelty to Animals, Chareh Sahel-el-Gelal, Boulac, Cairo, Egypt. Graduated London, May 16th, 1895. Died October, 1938.

We regret to announce the death of Mr. Victor Raphaël Gazi, which took place in Cairo at the end of last month. Mr. Gazi was the first veterinary surgeon to the Egyptian Turf Club, in which capacity he served for about 40 years up to the date of his death. During the Great War he was attached to the Egyptian Expeditionary Force and rendered excellent service. He was probably the best-known veterinary surgeon in the whole of Egypt. He performed valuable service as Superintendent to the Society for the Prevention of Cruelty to Animals and carried on for many years a very extensive practice in Cairo.

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Willett, Frederick William, Eton Cottage, Gresham Road, Staines, Middlesex. Graduated London, June 28th, 1888. Died November 19th, 1938; aged 72 years.

Mr. Frederick W. Willett, M.R.C.V.S.

The death of Mr. Frederick Willett, which occurred suddenly on Saturday last, will cause widespread sorrow, particularly among his confrères in the South of England, for he was a man of charming personality who, in an unassuming way, loyally supported such agencies for the advancement of the profession as the veterinary societies in and around London, while his wide

and generous sympathies were evidenced by his readiness to help, more especially the members of his own profession, through charities such as the National Veterinary Benevolent Fund and those of a Masonic nature.

Mr. Frederick Willett was born at Staines, and after qualifying in London in 1888 he joined his father in practice in that town. Owing to his energy and popularity as a practitioner, his clients increased considerably in the four counties of Middlesex, Surrey, Berks and Bucks. After his father's retirement he was joined as a partner by his younger brother, who on the outbreak of war joined up, and served both in France and Salonika, and the illness contracted as the result of the war led to his early death. Mr. Willett's own son qualified in Edinburgh in 1927 and joined his father, but the practice had become so extensive that it was only during the last few years that the latter was able to relax.

In connection with the early part of his career it may be mentioned that Mr. Willett, who was a most competent and progressive practitioner, particularly in the canine field at a time when interest was the exception instead of, as now, the rule, was veterinary surgeon to Queen Victoria's Clumber Spaniels when housed at Virginia Water. He had many of the Royal Family in his clientele. At this time, too, he was a member of the Berkshire Yeomanry as Veterinary Officer.

His profession was always first with him and although a busy man, he was for many years a constant attendant at the meetings of veterinary and medical societies. He had achieved the distinction of occupying the Presidential chair of both the Central Veterinary Society and of the Royal Counties V.M.A., while he was a member of the recently formed Sussex Veterinary Society. Mr. Willett also attended many congresses of the parent association, of which he was an enthusiastic supporter.

A Mason for many years, he was Past-Master of the Staines Lodge and a Provincial Grand Officer for Middlesex. Mr. Frederick Willett is survived by his widow, his son, Mr. R. A. Willett, M.R.C.V.S., and two daughters, to all of whom we extend our deep sympathy in their great loss.

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GENERAL OBITUARY

Professor L. S. Dudgeon

Not only St. Thomas's Hospital and the Medical School, but the cause of medical education, have sustained a grievous loss in the death of Leonard Stanley Dudgeon, dean of the Hospital and School and professor of pathology in the University of London. "His career at St. Thomas's began when the pathological departments of the London hospitals were in the embryonic stage," says *The Lancet*, "and his keen interest in human medicine, and his own skill as a clinician, led him to develop the laboratories under his control along definitely clinical lines, so that they always loomed more largely as an essential unit of the hospital than as a department of the medical school." While his acumen in clinical pathology gained him high repute as a consultant, and his competence as an administrator a prominent place among the deans of the London medical schools, teaching remained one of his major occupations and the system of medical training a matter of vital interest to him. He was, therefore, a leading figure in medical educational matters connected with London University, and in the course of its appreciative biographical notice *The Lancet* lays stress upon a feature of that activity which, in view of the observation made by the President of the R.C.V.S. at the Annual Dinner of the Central Veterinary Society (reported elsewhere in this issue), to the effect that it was unknown that a preliminary scientific degree should be given in the course of training for a technical qualification, is of some significance in its relation to the proposed changes in our own educational system. *The Lancet* says (our italics): "*Recognising that London University students often had a less thorough grounding in the basic sciences than those coming up from the older universities, he instituted a system by which certain selected students were encouraged to proceed to a B.Sc. degree before passing on to the clinical subjects, an innovation which is already bearing good fruit.*"

A convinced admirer and defender of the voluntary hospitals, he did yeoman service as honorary secretary of the Voluntary Hospitals Committee both before and after its reconstruction in 1935.

Soon after qualification, Dudgeon became associated with Louis Jenner, whom he succeeded as clinical pathologist to St. Thomas's Hospital, and this association, in combination with the degree to which he was influenced by Professor S. G. Shattock, led him to become one of the early workers in bacteriology and pathology as specialised subjects. During this period he accomplished much good work, notably in collaboration with Percy Sargent and Cuthbert Wallace, then junior surgeons, on the bacteriology of peritonitis and cystitis, and several bacteriologists destined to become eminent in this special field received their initial training in this laboratory. Dudgeon's immense capacity for productive work rapidly brought success and a degree of recognition in clinical circles which was unusual for a pathologist in the early part of this century. He made good use of the experimental method, and the studies on the pathology of immunity incorporated in his Croonian lectures in 1912 formed a distinct contribution to our knowledge of bacterial aggressins. Dudgeon stood in the front rank of practising pathologists and during the latter years of his life he had developed a technique for the rapid diagnosis of tumours by means of smears, and for the detection of malignant cells in sputum and other secretions, which has found a wide clinical application.

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VETERINARY EDUCATION: THE HISTORY OF THE LIVERPOOL SCHOOL

Veterinary education, with particular reference to the history of the Veterinary School of the University of Liverpool, was the major subject discussed by Professor J. T. Share-Jones, the Honorary President, in delivering his presidential address at the annual meeting of the Liverpool University Veterinary Society, held in the Hospital buildings, on October 21st, Professor Share-Jones intimated to a crowded meeting that this was the last occasion on which he would be addressing their annual meeting as Director of the School, as he was shortly about to retire. He deemed, therefore, that it would not be out of place if he recounted a few incidents in the history of the Veterinary School. This was his 35th year in the University, and he had

been there since the inception of the School—in fact he came to Liverpool at the time when the University of Liverpool began as a separate University, for up to 1903 it had been one of the constituent colleges of the old federal Victoria University.

The proposal to establish a school in Liverpool aroused a good deal of controversy in the profession and no small degree of opposition. He was pleased to say that the opposition did much good, for whereas the original proposal was to bring the school to Liverpool as an extra-mural institution with a kind of outside attachment to the University, owing to the objections taken the position of the school became very much strengthened for it was made an integral part of the University with a firmer association and greater security, and the members became members of the University staff. A greater degree of autonomy was also secured for its governing body, though they had not obtained everything that they desired. A peculiarity associated with veterinary education was that it could only be conducted by a university or college with the consent of the Privy Council. There was no question of the transference of a school, as was sometimes suggested, but an old proprietary school ceased to exist and a new university school was opened.

In these days of great demands for buildings and equipment it was interesting to recall that at that moment they had not a brick of their own, but generous sympathisers were converting, for their use as a dissecting room, an old greenhouse. He remembered during these operations, an elderly gentleman looking on while the workmen were engaged on the work, and entering into conversation with him. He seemed interested, and as he left the University he called at the Accountant's Office and paid the bill for the work. He was Mr. William Johnston, who became a great benefactor to the school. They received a gift from the late King Edward VII for their museum, but they had nowhere to put it. Professor (later Sir Rubert) Boyce cleared an area in his own museum so that the specimen could be suitably installed.

They next moved into Brownlow Street, where there was available a derelict mineral water factory, and with the expenditure of a very small sum this was converted. This proved to be a very cheap and efficient building. They were very much indebted to the efforts of Sir Alfred Dale in connection with this step.

Some time later, the Professor continued, he became acquainted with Mr. Roscoe Brunner, owing to some interesting work which he was required to do at his home in Northwich, and the result of this acquaintanceship was that Mr. Brunner and his brother, Sir John, joined their list of sympathisers, and it was through their efforts that they secured their present buildings in Bedford Street. They were still, however, without a hospital of their own. This was regarded as an urgent need. After considerable effort they were able to place their case before the Development Commissioners, with the result that they were promised out of the Development Fund a sum up to £15,000, on a £ for £ basis, towards the erection of a hospital and other buildings. Through the generosity of private benefactors, including Lord Howard de Walden and again Sir John Brunner and the late Mr. Roscoe Brunner and others, they were able to take advantage of this offer and the result was the erection of the buildings mentioned.

They had received, through the generosity of private sympathisers, the sum of nearly £70,000, but a large proportion of this had been devoted to the establishment of their science by endowment. The result was that all their staff had that security of tenure in their offices, which was so desirable if they were to put forward their best efforts. It would be seen, therefore, that they had endeavoured to construct slowly but soundly; in fact his own view had always been that they should try to build on the rock by endowing as they proceeded. To form a judgment as to whether this was the right policy or not, they had only to remind themselves of what had occurred to large numbers of institutions, particularly agricultural and veterinary schools, in different parts of the world during the period of some big financial strain, when it would be found that in scores they collapsed completely, if they were unendowed and were living a hand-to-mouth existence by fees and grants. In his judgment this latter policy might suit a certain type of institution, but it was not a policy upon which any professional institution could be conducted.

Buildings and staff, however, were not all—in any historical review the students were a very important factor, and it was to them that he particularly desired to address himself.

The School had had a lot of advertisement in its early days and students of the adventurous type seemed to gravitate towards it. The number of students in the School was at first about 60, and of these over 50 per cent. were in the first year of study. About 50 per cent. of these, again, had no preliminary certificate and never showed great tendency to secure one. There was not a single student who would have been eligible to take a University degree had one been available. But, as was expected, quite a number, having secured such amusement as they desired, left the School, and there was a good deal of improvement in the general type.

Later on a degree was instituted, and the course for the degree of bachelor was intentionally made longer and more stringent, and necessited greater expenditure of time, effort and money than was required for the minimum accepted as a licence to practise. It was purely an academic distinction, and the desire to take it had developed to such an extent that out of a school of 161 students at the present moment no fewer than 118 were taking the degree course, which entailed a residence for a minimum period of five-and-a-half years at the University. Of the 40 new students who entered recently every one was taking the degree. The number would be higher still but for the fact that for three or four years the entry had been restricted, and when one reflected on the fact that the degree was of no direct commercial value, but was taken as a hall-mark of achievement and from the highest possible motives, there could be no finer tribute to university education and graduation. Professor Share-Jones claimed that the spirit shown there was of a quality that was not excelled in any other faculty or school in that University, or indeed in any other. The degree was only granted to holders of the licence so that it would be seen how students in large numbers were prepared of their own volition to put forward additional efforts and undertake additional sacrifices in order to contribute to the uplifting of their science. He felt sure that in saying this the few who were not taking the degree—mostly from some accidental circumstance—were broad-minded enough to associate

themselves with him in expressing this tribute. Twenty to twenty-five years was but a short period for the evolution of qualities of this kind and he felt especially grateful to them all for the response which they had made to the action which was taken by the University years ago. It would reflect itself in the profession, of which they were all to be members.

As to the future, it was always dangerous to prophesy, but it was customary to say that it lay largely in the hands of the present generation. There were two great factors in operation on either side of their field. One was medical science and the other agricultural science, both, of course, with a desire to expand. It was up to them all to see that their science also made due expansion. In these days no science could afford to remain stationary, but he regretted to say that, in his opinion, recent legislation in this country was not such as would contribute to expansion of their field, but rather to its restriction.

It was not so many years ago since this country attempted to ascertain the value of its domestic animals, when it was found that the three food-producing species alone represented the colossal sum of between 400 and 450 million pounds. It was upon the industry concerned that they depended for some of life's greatest necessites. It was only natural, therefore, for the other two sciences, to which he had referred, to be concerned with it. But what they should remember was that the structure and function of the animals constituting the species mentioned formed the basis of understanding when dealing with problems associated with them. Anatomy and physiology of animals were dealt with slightly in agricultural science, and in medical science a good deal of veterinary physiology was borrowed and applied to the human being, but it was only in veterinary science that such anatomy and physiology were taken as a serious and substantial course. Consequently it was felt that this was the science that should deal with these animals, alive or dead, well or ill.

It was decided by the Paris Committee that the subject of the veterinary surgeon in relation to animal husbandry should be dealt with at one of the general meetings of the International Congress to be held in London in 1930, and he, Professor Share-Jones, happened to be one of the three invited to deal with the subject, the other two being Professor Markowski of Poland, and Professor Huertz of Czechoslovakia. On that occasion he defined animal husbandry as "the science applied to the production of the domestic animals, including the three food-producing species (the ox, sheep and pig), the care and development of them, and the use of their products and by-products, during life and after death, with the object of securing from these domestic species the maximum benefit to the community."

All three speakers felt somewhat lonely figures but he, Professor Share-Jones, was pleased to say that the view to which they gave expression gained ground very rapidly and it was most gratifying to them to hear the addresses of Professors Leclainche and Stang and representatives of many other countries recently at Zurich advocating that veterinary science should deal with the domestic animals, alive or dead, together with their products and by-products; in fact, all that breeding and production imply. In this connection he felt proud of the fact and he would remind them—that in the ordinance for their degree, to which he had referred, the subject of production of milk and production of meat as distinct from inspection, and as being something far greater, was for the first time introduced.

Associated with this great industry a striking feature, in his judgment, was the element of risk. Here was an industry representing a capital value of such an enormous sum associated with the greatest of risks and these risks imposed upon the individual. To him there did not seem to be anything comparable to this in any other business representing an infinitely smaller capital sum. He had, for many years, been advocating that this risk should be removed from the individual and pooled by a generous system of insurance. He could not there go into all the details of a question as great as this, but whereas some years ago the proposal was treated more or less apathetically, he was pleased to say that, owing to the grave difficulties which they were now experiencing, the leaders of the agricultural community and of the meat-trading fraternity had come round to the view that some such system should be evolved. In a question of this kind veterinary science would play a part that would be no less important and no less useful to the general community than the part that was played by medical science in relation to the human being under the National Health Insurance Act, which not long ago became of age, when its birthday was commemorated by representatives of all parties as being the most successful and beneficial measure placed upon the statute book for many generations.

He concluded by thanking them most sincerely for the very kind reception which they had given him.

Mr. D. O. Sutton, in proposing the vote of thanks, said that what Professor Share-Jones had to say was always an inspiration to them. They were under a great debt to him for what he was constantly doing to uphold their School, inside the University and outside. He knew they would all join him in expressing their gratitude to the Professor for what he had done for them, and he hoped that even though Dr. Share-Jones might leave the University officially he would find time, notwithstanding his many activities, to come back and speak to them again.

The vote of thanks was carried with acclamation, and Professor Share-Jones in returning thanks said that in the older divisions of arts, law, medicine and so on, which had long since been settled, all required of the holder of a chair that he should carry out the duties appertaining to his office. When his tenure ended he left. But in veterinary science they were pioneers. Their science was still in the making and as he had been in the movement to establish it in the University system of education from the beginning, so he would continue to be interested to the end. Of course he would be glad to come to see them. He would not be leaving the area of the University, and they could rest assured of his continued interest.

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OVERCROWDED MEDICAL CURRICULUM: "A REVOLUTIONARY PROPOSAL"

On the occasion of the conferment of the honorary freedom of the Society of Apothecaries on Sir Buckston Browne, F.R.C.S. (at a Yeomanry dinner given in the Hall on Tuesday last), the Junior Warden (Dr. T. B. Layton) said the

medical curriculum was so overcrowded that it needed revision. There was no room in the five years covered for a single more five minutes' instruction. He had come to the conclusion that there was no way out but to lift some large subject into the graduate period of education. The subject that might be so removed was obstetrics. He knew it was a revolutionary proposal. It meant an inquiry into the doctor's means of earning a living after qualification while he continued his education in the graduate period. It meant facing Parliament with a Bill. It might meant a complete reorganisation in those hospitals to which medical schools were attached, but he would ask all seriously to think how else the medical curriculum could be lightened.

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MEMORIAL TO JOHN BOYD DUNLOP

At Fort Dunlop, on November 17th, there was unveiled a plaque to the memory of the late John Boyd Dunlop, M.R.C.V.S., the veterinarian inventor and patentee 50 years ago of the pneumatic tyre, a tribute to whose life and work, from the pen of his daughter, Mrs. Jean W. McClintock, appeared in our issue of November 5th. Sir George Beharrell, unveiling the plaque, said that like the steam engine and the electric cell, that invention had revolutionised our daily life. It had given people the freedom of the road, introducing them to their heritage of the countryside, and had brought health and happiness to many. The pneumatic tyre was the greatest contribution to transport since the invention of the wheel itself.

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R.C.V.S. ANIMAL MANAGEMENT EXAMINATION

List of Successful Candidates

(*Continued from page* 1604)

Glasgow:

Auld, R.
Bannister, Miss J. D.
Brown, J. (Glasgow)
Campbell, Miss D. G.
Kerr, J. D.
Logan, J. B.
McGuinness, A.
McMillan, W. P.
Morrison, J. G.
Meikle, H. A. G.
Nisbet, R. M.
Roger, S. A.
Shaw, D. B.
Thomson, E. C.
Traub, L. D.

(*To be continued.*)

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PREVENTIVE MEDICINE AND THE FUTURE OF THE PRACTITIONER

Dr. Robert Hutchison, President of the Royal College of Physicians, proposing the toast of the Society at the recently held annual dinner of the Society of Medical Officers of Health, said preventive medicine had far more victories to its credit than had the curative side of the profession. The curative side had scored lately over diabetes and pernicious anaemia, and he was glad to think that recent developments of cheirotherapy offered a chance of greater victories in the future, but most of the improvement in the death-rate was due to preventive medicine. He believed there was not much more that could be done by preventive medicine on its present lines. There was an increasing amount of morbidity. Much of it was due to minor forms of organic disease, but a large part of it was not functional in origin. Preventive medicine in the future would have to widen its scope and must take in not only the physical but the mental and moral environment of man.

Dr. E. H. T. Nash, in reply, said that changes in the relationship between clinicians and the preventive branch of medicine would be very rapid in the next ten years. Public assistance hospitals were rapidly treading on the heels of the great teaching hospitals, and the public health service was linking up more closely with them every day. Unless they were very careful to see that the general practitioner was utilised more and more in public health work he would atrophy, and it would be a bad day for the general public if that was allowed to happen.

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THE MILK INDUSTRY BILL

Long-Term Policy

Reference is made in our Parliamentary columns to the presentation in the House of the Milk Industry Bill, the text of which was issued on Thursday of last week. The Bill follows the line of policy set out in a White Paper as long ago as July, 1937. Since 1934 the dairy industry has been assisted by temporary legislation, continued in force from one year to another while the Government prepared a long-term plan. There have been Exchequer subsidies to meet part of the producers' loss on account of low butter and cheese prices, subsidies to provide school children and poor mothers with milk at a reduced price, and bonuses paid to farmers who cleared their herds of tuberculosis. Thanks to the milk-marketing scheme and such Government assistance, the dairy industry has succeeded in making real progress. More milk is being sold for liquid consumption and the quality of the milk supply is being steadily improved. The Bill now before Parliament is an attempt to guide the development of the dairy industry along lines that will bring further benefits to both producers and consumers. Its underlying principle is that the nation's interest requires an increased consumption of milk of reliable quality.

This measure, of 78 clauses, provides for the setting up of an independent Milk Commission to supervise generally the activities of all sections of the industry; it also contains proposals for experiments in rationalising milk distribution by retailers, and for making pasteurization compulsory in an area on the request of a local authority. There is to be an experimental approach to the better organisation of milk distribution, and it is to be tried first in not more than ten small areas. On the basis of proposals made by interests in the industry substantially capable of putting them into effect, the Milk Commission will have power to select and submit to Ministers not more than ten of these local rationalisation schemes.

Schemes must provide for the supply of milk in the area concerned by specified persons in a manner calculated to bring about greater efficiency and economy. The approved suppliers would be responsible for compensating persons who suffered damage by the operation of a scheme, particularly the distributors who would be displaced. Provision is made for consultation with the Milk Advisory Committee—the

trade body which will advise the Milk Commission—local authorities, and other interests concerned before a scheme is sanctioned. The Bill also provides for the holding of inquiries into objections, and the schemes must be approved by Parliament. If a scheme is found to be not in the public interest it can be revoked. The object of these experiments will be to see whether the cost of milk to the consumer can be reduced by doing away with some of the wasteful competition which now goes on among retailers.

The Milk Commission will undertake inquiries into the costs of milk distribution and it is empowered, wtth a view to promoting efficiency or economy in distribution, to make regulations with regard to the number and hours of retail deliveries of milk, the kinds of milk and cream containers which may be used, the maintenance and equipment of dairy premises and vehicles, and the descriptions that may or may not be used in connection with the retail sale of milk or cream. These regulations may be of general or local application.

Provision is made for the full consideration of objections, and the regulations must be laid before Parliament. The Bill will permit distributors, if they so wish, to organise milk distributors' schemes. These would enable the boards administering them to perform functions of service to registered distributors and, in particular, to determine distributive price margins. Producer-retailers selling milk mainly of their own production would not be registered under a distributors' scheme but would remain under the jurisdiction of the Milk Marketing Board. Any such distributors' schemes would be on a wide territorial basis, probably corresponding to the areas of the existing milk marketing boards.

Pasteurization Orders and Clean Milk Inducements

The Bill enables Ministers to make Pasteurization Orders on the application of a local authority, providing that certain conditions are fulfilled. Such orders will prohibit after a specified date—not earlier than two years after the making of the order—the sale by retail in the area concerned of milk that is not either pasteurized, sterilised, tuberculin tested, or certified. Retailers in the area who obtain 80 per cent. of their supplies from a single herd may secure exemption for a further three years after the prohibition would otherwise operate.

Producers or distributors, under their respective organisation schemes, will be authorised to provide general facilities for pasteurization so that small men will have no difficulties about access to the necessary plant. In London 98 per cent. of the milk distributed is already pasteurized.

The Bill provides that for five years Exchequer assistance shall be given to enable milk marketing boards to offer increased inducements to producers for the provision of cleaner and purer milk. These increased quality premiums—operating retrospectively from October 1st, 1938—will probably cost the Exchequer £2,000,000 for the current year and £2,300,000 in the following year. Exchequer assistance for the milk-in-school schemes and the proposed schemes for the provision of milk at reduced prices for nursing and expectant mothers and young children will be continued till September, 1943. The Exchequer expenditure under this head will be increased to about £1,000,000 a year.

The Commission is empowered to expend money on research or education in respect of any matter concerning the production, distribution or consumption of milk or any milk product, and provision is made for the appointment by the Commission of a Research Committee ("The Milk Research and Education Committee"), the majority of its members to be representative of the interests of potential contributors, *i.e.*, milk producers and sellers, and the remainder persons specially qualified by their scientific knowledge.

There is provision for Exchequer assistance to milk marketing boards in certain circumstances in respect of milk used in manufacturing butter or cheese, including milk made into cheese on farms. This price-insurance scheme will protect milk producers from the possible effect of serious falls in the price levels of butter and cheese sustained over six-monthly periods.

The Bill also empowers the Board of Trade to impose quantitative regulation on imports of milk and milk products if this is thought necessary to secure the stability of the home market. This is on similar lines to the provision in the Livestock Industry Act and it relates to regulation by quotas only.

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IRISH VETERINARY COUNCIL: ANNUAL DINNER

The Annual Dinner of the Irish Veterinary Council was held in the Shelbourne Hotel, Dublin, on November 12th, when the principal guests included Mr. P. F. Dolan (President of Council), Dr. J. Ryan (Minister for Agriculture), Mr. Sean T. O'Kelly (Minister of Local Government and Public Health), Alderman A. Byrne (the Lord Mayor), and Mr. P. J. Hernon (City Manager).

Proposing the toast "Public Health and Agriculture," Mr. A. Donnelly, M.R.C.V.S., Drogheda, said that the Milk and Dairies Act of 1935 had gone far in providing the public with a sound, clean milk supply. He hoped that when the Act was in full swing the Minister would turn his attention to meat hygiene. It was essential that every town with a population of over 3,000 should have a public abattoir. Ireland probably held the distinction of being the country most free from contagious diseases in animals. Though their island position might be a factor in giving rise to such a happy state of affairs, he considered that the veterinary profession and the veterinary officers of the Department of Agriculture could safely claim a large share of the credit.

In view of the service rendered by the veterinarians to agriculture and public health, the Government and the country had in the past failed to give the profession the financial assistance warranted by the animal wealth of the country.

Until recently, research into animal diseases had been greatly restricted. The small sum of £3,778 was given for research in 1936 and 1937. When it was realised that the animal loss to the country in preventable diseases in livestock reached the estimated figure of at least seven million pounds, it was obvious that research had been neglected.

Referring to the proposal to set up a commission of inquiry into agriculture, Mr. Donnelly said it was to be hoped that the recommendations of the commission would result in an era of prosperity for the agriculturist. He suggested that the Minister for Agriculture might appoint a

public committee of inquiry into veterinary teaching and veterinary services.

Ministers' Replies

Responding, Mr. Sean T. O'Kelly said that taking into account all those who gained a livelihood out of agriculture, almost 70 per cent. of their population was associated with that industry. Many of their small farmers were milk producers, and the conditions under which these producers worked were not such that they could bring the Act of 1935 into operation hurriedly. This measure would not come fully into operation until January next. Only with the full co-operation of members of their profession could that measure bring great benefits to their community.

Dr. Ryan, who also responded, said that in helping to maintain the standard of their livestock the veterinary profession played an important part in the agricultural life of the country. They had succeeded in this country in getting rid of many of the terrible animal diseases common in Continental countries.

Dr. Ryan said that the Veterinary College would be reconstructed. There would be added to it new operating theatres; the laboratories would be improved and better accommodation would be provided for professors, students and animals. The Minister agreed that considerable losses were sustained in this country annually by the death through disease of many animals, but he thought it was better to perfect the Veterinary College before granting money for research. At the moment very good work was being done by their research workers.

Dr. D. J. Coffey, proposing the toast, "The Veterinary Profession," said that it was upon Irish institutions that the whole nation depended. In the modern development in science and work in the laboratory and inquiry into the causation of disease, this country had not been behind time.

The President, responding, said if the veterinary profession had a free hand tremendous progress would be made.

The toast, "The Guests," was proposed by Professor J. J. O'Connor, and the Lord Mayor (Alderman A. Byrne) replied.

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JUBILEE OF THE PASTEUR INSTITUTE, PARIS

"November 14th, 1938, marked the fiftieth anniversary of the inauguration of the Pasteur Institute of Paris as the result of international subscription, but the actual celebrations have, owing to the recent crisis, been postponed until December 27th, the anniversary of the birth of Pasteur," reports last week's issue of *Nature*. "The spacious building in the Rue Dutot, recently re-named Rue du Dr. Roux, took the place of the small laboratory in the Rue d'Ulm, where so much of Pasteur's valuable work had been carried out. Although his labours were interrupted by ill-health during the rest of his life, he received the assistance of a number of collaborators and pupils, notably Roux, Yersin, Metchnikoff, Chamberland and Calmette. The Institute at once became an important centre for bacteriological research, the results of which were published in the *Annales de l'Institut Pasteur*, founded in 1887, in which epoch-making papers appeared on rabies, anthrax, diphtheria toxin and antitoxin, and experimental syphilis, among many other important subjects.

"In 1903 the *Annales* were supplemented by the *Bulletin de l'Institut Pasteur*, which contained, as the title indicated, reviews and summaries of work on bacteriology, medicine, general biology, physiology and biological chemistry in relation to microbiology. The close association of the Institute with clinical medicine was shown by the subsequent establishment of the Pasteur hospital for infectious diseases on the opposite side of the street. Pasteur died on September 28th, 1895, and after a public funeral was laid to rest in a magnificent tomb in a crypt of the Institute. Since his death, three eminent men have been in charge of the Institute, namely, Emile Duclaux (1895–1904), Emile Roux (1904–1933), and Louis Martin, the present director. Metchnikoff, Chamberland and Calmette were for some time sub-directors. Numerous Pasteur institutes modelled on that of Paris have been built in different parts of the world, such as those at Saigon (1889), Tunis (1893), Lille (1895), Algiers (1910) and Athens (1920)."

The Pasteur Institute has contributed a very large share to advances in our knowledge upon animal diseases. Indeed, Pasteur's fundamental experiments in the application of bacteriology to the living organism were carried out upon the domesticated animals, to wit fowl cholera, swine erysipelas, anthrax and rabies. It is fitting, therefore, that we, on our part, should offer this great Institute also our heartiest congratulations upon attaining the jubilee of its foundation.

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FOOT-AND-MOUTH DISEASE

Drastic Control Methods in Sweden

The Stockholm correspondent of *The Times*, in a message to his paper dated November 13th, states that, as a precaution to prevent the spread of fresh foot-and-mouth disease from Denmark, every traveller arriving in Sweden from Denmark, on passing through the Customs, will have to wash his hands and other uncovered parts of his body in chloramine solution, and pass over a carpet saturated with the same fluid. Arrangements are also being made for having the clothes of travellers treated with a vacuum cleaner.

A handbill distributed to travellers will ask them to change their clothes and shoes immediately they arrive at their destinations, and not to use the same articles or clothes for a week but let them hang. They are further asked to take a thorough bath, preferably a steam one, and persons from the countryside who may not have adequate facilities of their own will be supplied with hot baths at the Government's expense in the ports of Malmö, Landskrona, and Hälsingborg. The population is requested to limit its crossings to and from Denmark to the minimum.

"In spite of efforts to keep the disease within bounds in Denmark, towards which the Swedish Government contributed 850,000 kroner (about £45,000) compensation money in the spring, infection has spread so fast in the southern Swedish provinces that technical difficulties are threatening the programme of slaughtering infected cattle now in progress. Since the isolation of infected cattle is calculated to cost the farmers ten times as much as the destruction of the beasts costs the State, a shortage of veterinary surgeons and slaughterhouse personnel is causing grave anxiety lest Sweden may have to turn to the method of isolation after all. So far

20,000 horned cattle, pigs and sheep have been killed, and under a scheme of reciprocal support Denmark has contributed in compensation about the amount received from Sweden earlier in the year. Measures are in preparation for provisionally abolishing the legal limitation of working hours at slaughterhouses in Southern Sweden."

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CONGRESS ON BRUCELLAR INFECTIONS

The federation of medical societies of North Africa are holding a congress at Oran on April 3rd, 4th and 5th, 1939, under the presidency of Dr. Jasseron. Eight discussions will be held, each dealing with an aspect of the problem of brucellar infections in North Africa. Further information may be had from the secretary-general of the congress, Dr. Rene Solal, 16, Boulevard Joffre, Oran, Algeria.

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PARTURITION AND THE PITUITARY

"Oxytocin has only one pharmacological property—and that a most useful one to the obstetrician—namely, the power to cause strong contractions of the uterus," states the *Lancet* in a recent issue. "*In vivo* this property is most noticeable at the time of labour, which is when the secretion of oestrin is at its climax, and it can be shown that oestrin renders the virgin uterine muscle hypersensitive to oxytocin. These facts have not unnaturally prompted the hypothesis that the pituitary, aided and abetted by the placenta, is primarily responsible for the initiation and maintenance of parturition. Unfortunately, however, there is evidence that pregnancy in animals may persist to its normal conclusion after the pituitary gland has been removed, and for this reason it is at present almost universally believed that the pituitary plays no significant part in normal labour.

"A paper by Fisher, Magoun, and Ranson[1] suggests that the earlier belief may after all be correct. The authors are primarily interested in the rôle of the hypothalamus in diabetes insipidus, and they have already been able to produce the symptoms of this disease with great regularity in cats by damaging the anterior hypothalamic region in such a way as to destroy the nervous pathway to the neural part of the pituitary gland. In such animals it is found that the neurohypophysis is atrophied and contains very little of the oxytocic, pressor, or antidiuretic hormones. The point of interest is that of a total of 85 cats thus rendered diabetic, seven happened to be pregnant at the time of the operation. In all seven pregnancy proceeded normally to term, but labour was abnormal. Four died during the course of protracted labour, during which they were either totally unable to expel the uterine contents or succeeded in delivering only a portion of the litter. The other three managed to survive the ordeal but labour was notably protracted and two of them died within a few weeks of delivery. In the four fatal experiments the unborn foetuses were elongated and compressed, as though they had been subjected to violent incoördinated contractions. From these interesting observations Fisher and his colleagues draw no definite conclusions, but they rightly insist that the pituitary cannot lightly be ignored as a possible instigator of parturition. They point out that earlier workers have usually extirpated the whole pituitary gland and have neglected to examine the region later for remnants of neurohypophyseal tissue. In their own experiments they state that whenever diabetes insipidus failed to develop, remnants of the infundibular stem could be detected by careful histological examination.

"The whole question clearly demands re-examination and further experimental data will no doubt become available. Meanwhile, perhaps the clinician can help. Diabetes insipidus is not excessively rare and must from time to time be accompanied by pregnancy. Careful study of the obstetric history in such cases might yield useful information, although the story may be complicated by the fact that many of the pituitary preparations used in the treatment of diabetes insipidus contain large quantities of oxytocin."

[1]Fisher, C., Magoun, H. W., and Ranson, S. W., *Amer. J. Obstet. Gynec.* 1938, **36**, 1.

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H.M. STATIONERY OFFICE PUBLICATIONS

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at the following addresses: London: Adastral House, Kingsway, W.C.2, and 28, Abingdon Street, S.W.1: Cardiff: 1, St. Andrew's Crescent; Manchester: York Street; Edinburgh: 120, George Street.

	Price net s.	d.	*Post free* s.	d.
AGRICULTURE AND FISHERIES, MINISTRY OF (BULLETINS):				
75. Poisonous Plants on the Farm (by H. C. Long, I.S.O., B.Sc. (Edin.)). Second Edition, October, 1938. (24-202-75-38)	2	0	2	3
114. Bovine Contagious Abortion. September, 1938. (24-204-14-38)	0	4	0	5

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Under the auspices of The Royal Sanitary Institute, the Benjamin Ward Richardson Lecture, founded by the Model Abattoir Society, will be delivered at the Institute, 90, Buckingham Palace Road, London, S.W.1, on Tuesday, December 13th, 1938, at 5.30 p.m., by Mr. John Austin, managing director, Midland Cattle Products, Ltd. The subject of the lecture will be "The Hygienic Treatment and Disposal of Offal and By-products in Abattoirs." The chair will be taken by Brigadier-General John Charteris, C.M.G., D.S.O. Those proposing to attend this lecture are requested to notify the Secretary of the Institute not later than December 7th.

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In reference to the great extension of their new premises in Tavistock Square, which our friends—and, we might almost say, neighbours—the British Medical Association already have found it necessary to undertake and which represents an enlargement of headquarters that is eloquent of membership expansion and well-earned prosperity, the *Pharmaceutical Journal* observes: "The Lutyens building, admirable as one would expect, has been outgrown in a short space of time, and now an adjoining site has been cleared of old houses to make room for a great extension of the headquarters, the building of which is to be started at once. It is expected that the total cost of the headquarters of the Association will be half a million of money well spent. The house where Charles Dickens once resided is on this site, but our friends are to be congratulated on preserving the old mulberry tree under which that great novelist used to write."

THE FATTY LIVER

"Fatty livers are common enough in the *post-mortem* room and yet we are still far from understanding their pathology," states the *Lancet* (October 1st), and continues: "The pioneer work of Virchow and later of Rosenfeld attributed the accumulations of fat in this organ to the action on the liver cell of a toxic agent which prevents it from disposing of the fat continuously brought to it. The method of production of a fatty liver is now known to be far less simple. The fact that the injection of certain extracts of the anterior lobe of the pituitary into rats, rabbits, or guinea-pigs produces a large accumulation of fat within the liver suggests that the amount of fat within the liver may be directly or indirectly under hormonal control. In 1924 F. N. Allen and his colleagues showed that administration of whole pancreas by mouth to depancreatectomised dogs, maintained on an adequate diet and sufficient insulin, prevented the fatty infiltration of the liver and premature death which ordinarily occurred. Six years later J. M. Hershey showed that lecithin could successfully replace raw pancreas in the diet of such animals. Best, Hershey, and Huntsman found that lecithin could prevent the deposition of fat in the livers of rats fed on a high fat diet, and further that choline was the only part of the lecithin molecule active in this respect. Two years ago Dragstedt and his colleagues[1] announced the discovery in raw pancreas of a substance other than choline which prevents fatty infiltration of the liver. Various attempts to confirm their findings have not been successful, but now Professor Channon and his colleagues[2] have carried out carefully controlled experiments which leave little doubt that the claims of Dragstedt are justified and that this work opens a new line of study. Meanwhile it is difficult to reconcile the new knowledge with the old teaching. Are we to abandon completely Virchow's conception of a direct toxic action on the liver cell even by such poisons as chloroform, phosphorus, and bacterial toxins? Do such agents depress the functions of the liver cell? Do they stimulate the anterior pituitary to produce an increased amount of hormone, or do they antagonise or destroy choline or the unknown pancreatic factor?"

[1]Dragstedt, L. R., Van Prohaska, J. V., and Harms, H. P., *Amer. J. Physiol.* 1936, **116**, 36.

[2]Channon, H. J., Loach, J. V., and Tristram, G. R., *Biochem. J.* 1938, **32**, 1332.

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Errata.—Readers are requested to note the following corrections to last week's leading article on the Loveday Report: p. 1590, col. 1, para. 4, line 4, insert comma after "profession"; col. 2, line 9, read "admits neither of the convincing evidence"; para. 2, five lines from end, delete ", according"; p. 1592, col. 2, para. 1, penultimate and last lines, read "extension of his knowledge in the specialised fields covered by these subjects."

CYCLIC VARIATION IN RESPONSE TO INJECTED OESTRONE

"Time-to-time variation in the sensitivity of animals used for the assay of substances by their physiological effects is occasionally reported but has seldom been clearly demonstrated," states a recent *Lancet* annotation. "Assayists, though they often adopt control measures which avoid the assumption of constancy in the sensitivity of their animal material, have been slow to produce good evidence of periodic variation. Bülbring,[1] in 1937, showed that the amount of cortical extract needed to keep adrenalectomised drakes alive for a given period was three times greater in May than in July, and E. Laquer, at the International Physiological Congress at Zürich last August, reported seasonal differences in the response of capons to injected androgens. Now Duszynska[2] has given a convincing account of an annual cycle in the response of ovariectomised mice to oestrone injections. The response is highest during the spring, and falls to a minimum in the late autumn, and the curve for one group of 60 mice coincided with that for another group which was castrated and brought into use at a later date. Duszynska emphasises the need for a comparison of unknown with control material at each assay, and points out that there must be some extraneous modifying factor to account for the changes noted. She also considers the possibility of a similar cycle in woman, and the desirability of varying the dose of oestrogens in replacement therapy if such be found. Lastly she suggests that in animals that exhibit seasonal sexual activity variations in this activity may be due to changes in sensitivity to oestrogens, and not necessarily to changes in hormone production. It is rather surprising that the mouse should show this annual change in response, since it is one of the few mammals which, like civilised man, do not exhibit much seasonal alteration in sexual activity. It is well established that light may have a profound influence on sexual function in birds and mammals, and it has usually been assumed that its action is exerted through the pituitary-gonad relationship. The nature of the cycle discovered by Duszynska, with a response increased in spring and decreased in autumn, points strongly to light as the controlling external factor. If this be so, we may not expect to find such a cycle in woman, accustomed as she is to artificial illumination during the winter months."

[1]Bülbring, E., *J. Physiol.* 1937, **89**, 64.

[2]Duszynska, J., *Nature, Lond.* Oct. 8th, 1938, p. 673.

Raids on Poultry Farms.—Poultry farm raiders are active in the Midlands. In Warwickshire, where farmers have suffered heavily from losses by theft, as many as 300 fowls have been stolen from one farm in one night. In many cases the tyre-marks of a motor vehicle are the only clue. The raids are evidently carefully planned. The thieves usually await a stormy night and, it is thought (says the *Farmers' Weekly*), gas the birds to prevent their making a noise.

One of the most daring raids was on the farm of Mr. Norman Southall, at Fenny Compton, Warwickshire, where nearly 340 fowls, worth £130, were stolen. Another farmer in the same village lost 88 birds.

Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The views expressed in letters addressed to the Editor represent the personal view of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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THE LOVEDAY REPORT

To the Editor of the Veterinary Record

Sir,—May I, as a younger member of the profession, express my appreciation of your editorials dealing with the Loveday Report. The recommendations embodied in that Report appear, both to me and to all my contemporaries with whom I have discussed the matter, not only to lay the foundations of the improvement of veterinary education in respect of preventive medicine—using that term in its widest sense—but also to add considerably to the scope of clinical instruction.

You may imagine with what astonishment my friends and I read the letter from the Principal of the Glasgow College. If such opinions as his are shared by other members of the Council R.C.V.S., or should any action by that body prejudice the fulfilment of the progressive measures of the Loveday Report, then, at the very outset of our careers, many of us would be confronted with a bitter disappointment. Our hope is to see the profession rank indisputably equal to the other learned callings in all walks of life.

As one who has attended the present joint course for diploma and London degree, I should like to state emphatically that the arrangements now obtaining, in which basic scientific subjects are staggered over the clinical years, render it very difficult for the "double" to be obtained. At present, only a very small proportion of those who commence their degree course are able to continue and to complete it, because of the inco-ordination of the two courses. I feel sure that the Loveday Committee's projected plan for a three-year degree course would add considerably to the number of students who would achieve the added status which the degree confers.

I am, Sir,
Your obedient servant,
Alastair N. Worden.

Lister Institute of Preventive Medicine,
Chelsea Bridge Road,
London, S.W.1.
November 22nd, 1938.

. . . . .

To the Editor of the Veterinary Record

Sir,—It was perhaps wise and illuminating to publish, along with this Report, the views of the great Masters of veterinary education and advancement in other countries. It may be interesting and educative to bring out some of their tenets and mentally compare them with a number of the *sine qua non* affirmations in the Loveday Report.

Professor Leclainche does not pin his faith to six months on a farm as a preliminary to the absorbing of veterinary knowledge. He writes, "Two months on a farm, with selected agriculturists during the first summer vacation; three months on an establishment relating to veterinary administration; three months at a designated abattoir, during the summer vacation preceding the final examination; six months with an approved practitioner at the close of studies."

Professor Valentin Stang writes: "Healthy milk comes only from the healthy animal" and demands, therefore, regular "*veterinary supervision of the condition of milch animals* used for the production of the two grades, brand and superior quality milk. It is to be hoped that all States which have taken measures to regulate the sale of milk will soon prescribe veterinary supervision of milch animals." And again, "The veterinarian must not be satisfied only with keeping the animals in good health; his activities must tend towards the betterment of the economic conditions of the country. He must collaborate in the development of breeding, in the increased yield of the animal herd and thus prevent grievous losses occasioned either through epidemics or by the consumption by man of unfit foods of animal origin."

Finally, what are the views of Dr. P. J. du Toit, the Director of Veterinary Services of South Africa? "Veterinary science has come of age and wishes to be treated as a separate branch of learning. The veterinarian refuses to admit that veterinary science is in any way subsidiary to or dependent on the sister science of human medicine or the allied science of agriculture. We must look to the veterinarian to control and protect the health and hygiene of our dairy cows. Where veterinary science is independent and enjoys the full confidence of the authorities there its achievements rank high; but where it is regarded as an appendage to medicine or agriculture, has no independent status, there its achievements are lower,"

Yours sincerely,
G. Mayall.

Bolton.

. . . . .

To the Editor of the Veterinary Record

Sir,—In the *Veterinary Record* dated November 12th, S. L. Trevor states that the sons of farmers as well as the sons of ostlers and grooms are mentally stagnant to an appalling degree, and that their admission to the veterinary profession has resulted in a social and professional degradation from which the sons of Civil Servants are now elevating it. He also appears to think that—generally speaking—the sons of Civil Servants are as well acquainted with the farm animals in health as are farmers' sons.

To use his own words, "I am surprised that such a fair-minded organ should publish a statement so prejudiced"—as that contained in Mr. Trevor's letter.*

Your obedient servant,
R. F. Ross.

151, Kirkintilloch Road,
Bishopbriggs,
Glasgow.
November 16th, 1938.

*[*Editor's Note.*—It should be pointed out clearly that our Correspondence columns are open to the ventilation of opinion, however controversial, provided it is not libellous.]

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AN ADMINISTRATOR'S RETORT

To the Editor of the Veterinary Record

Sir,—Mr. Hall Masheter tells us (*Vet.* Record, Nov. 19th, 1938) ". . . —and that will work out at about one supervisor to one part-time inspector, who in the majority of cases will be old enough to be the administrator's grandfather,

and generations beyond in knowledge and administrative ability."

Where is this to be? In a land where it is always midday; where practitioners are born old and wise and experienced and remain old and wise and robust, never slipping—oh, blessed marvel!—into a garrulous senility: where whole-time men stay perpetually ignorant, crude, callow and young—young and strong though for ever crude and callow and inexperienced? All that may be in the pleasant but mythical Isle of Stasis, but, alas and alas, not here, or why these thicker lenses, whither the lost resilience, whence these grey locks, and what is this that calls me grandfather?

Being one of the not-so-very young, I may be allowed to suggest that the young have more cause to suspect flaws in the wisdom of the aged than the aged have to doubt the certainty of the young.

Yours faithfully,
ESMOND BROWN.

Bath.
November 20th, 1938.

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INVERSION OF THE UTERUS

To the Editor of the Veterinary Record

Sir,—Mr. Baxter considers that Mr. Margarson and myself are extremely optimistic in not using sutures or other methods after replacing a prolapsed uterus, in order to prevent a re-occurrence, adding that we do not know that the factors which caused the condition in the first place may not occur again. I should like to enquire what these factors are which the use of sutures or a clamp (rivalling the crudeness, but I would not say the effectiveness, of the "Girdle of Chastity" of the Middle Ages), are going to stop operating?

It is not a decade since I made use either of a clamp or sutures and the first time I discarded the use of either, was dictated by a similar necessity once ascribed to Mother Hubbard, and I left the case, not in a spirit of optimism, but one of decided pessimism, quite expecting to be called back again. Pessimism changed to optimism when this did not re-occur, and the case went on better than any previous one, where the resulting vulvar picture reflected little credit on the surgeon. I decided not to use either in future, except in a small minority of cases where expulsive efforts were pronounced—these can now be alleviated if not completely stopped, by the use of epidural anaesthesia, if the introduction of a hot saline solution, or of iodoform, fails. I am not wishing to be dogmatic when I state that it is my considered opinion that if the prolapse is thoroughly cleansed, all placental membranes removed, and the prolapse correctly replaced (not just bundled in, to quote vulgar Saxon, "neck and crop") and contraction hastened either by the use of pituitrin (as advised in my last letter) or as preferred by some, the direct injection of adrenaline into the prolapse before reduction, together with the intra-uterine injection of a *hot* saline solution (just *warm, will not do*), which will also assist in the removal of blood clot, re-occurrence is rare. It is a good plan to have the patient placed so that her tail will be higher than her head for the next 48 hours.

I think that if Mr. Baxter satisfies himself that he has carried out this procedure he will in time come to regard the appliances he now recommends, except in a distinct minority of cases, in the same light as does so great an authority as Dr. W. L. Williams—and that is, that they probably possess a greater psychological value than a scientific one.

Yours faithfully,
J. F. D. TUTT, F.R.C.V.S.

"Rothiemurchus,"
St. Cross,
Winchester.

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ACTINOMYCOSIS

To the Editor of the Veterinary Record

Sir,—In your issue of October 22nd, 1938, there appeared a letter, written by Mr. J. F. D. Tutt, enquiring into the treatment of actinomycosis by intravenous injection of sodium iodide. The following case may doubtless be of interest to the profession generally. On October 28th, I was called in to see a cow in which actinomycosis was very advanced, which condition, according to the owner, had been progressing for eight months. The animal presented a really ludicrous appearance, the face gave a "blown-out" impression, the nose was protuding, salivation was profuse, respirations were laboured and food was taken with difficulty. The condition looked hopeless and I frankly gave the owner no hope for recovery. However, he was very insistent that I should try something as the cow was a heavy milker and within three weeks of calving.

On October 30th I gave intravenously sodium iodide ʒi diluted in ʒxv distilled water. I called again on November 9th and gave a further intravenous injection of sodium iodide ʒi to ʒxv water. On that day a very decided improvement was to be noted. I made a final call on November 16th and was really amazed at the cow's appearance. One side of the face was nearly normal, while the other was half the size it was when I first saw it. Salivation had ceased and the animal was feeding without difficulty. The result in this case represents the most spectacular recovery I have ever seen.

Yours truly,
C. W. ABRAMS.

56, High Street, Wanstead
and
Theydon Castle Road,
Theydon Bois.

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THE ABBREVIATION "VET."

To the Editor of the Veterinary Record

Sir,—To those members of the profession who possess an ingrained fetish toward that word or, rather, abbreviation, "vet.," the bygone relic of an illiterate and doubtful past, I bring sad news across the water. Some time ago while sitting in a club somewhere in Canada I picked up a morning daily, when my attention was directed to a column headed in bold type: "Great War was a picnic compared to Spain, Vet. says." I naturally thought a member of my profession had distinguished himself in Spain, but on reading on I found to my horror (?) he was a war *veteran* and that "vet." in Canada is the abbreviation.

I then asked myself the question, "Who has priority here—the veterinary "vet." or the veteran "vet."? But as I think there must have been veterans before there were veterinary surgeons the former should have priority, and now that this sacred cult or word has lost its monopoly (and charm!) let the veteran keep his "vet." and the veterinary surgeon drop it gracefully, remembering he is now a member of one of the learned professions.

Yours faithfully,
Bridgwater. WM. SCOTT.